Model 5820/30B Schematics

AVETEK®
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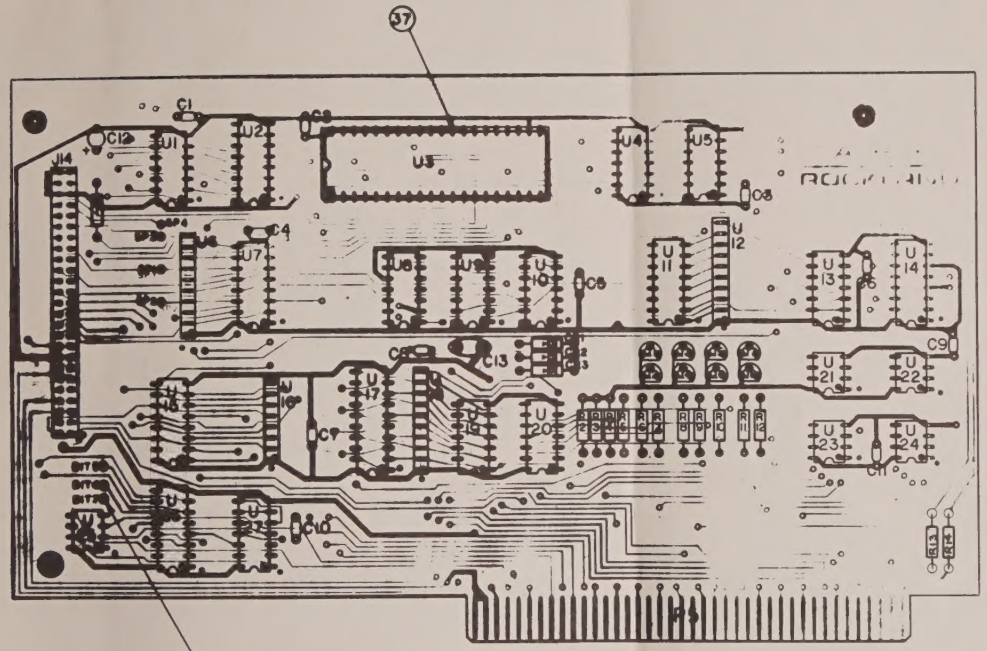
LTR	ECO NO.	CHANGED BY	APPV'D BY	DATE
A	PROTO			
B	RELEASE			2/5/81
C	1240	TG 9/1/81		9/1/81
D	1337	MP 3/29/82		9/1/82
E	1406	MP 7/28/82		9/1/82
F	5077	TM		3/1/85



SHTS 2 +3 ARE "A" SIZE L/M

DRAWN BY M. McMINN	DATE 2/9/81	WAVETEK
CHECKED BY	3/6/81	
ENG APPVL.	3/6/81	Confidential property of WAVETEK. not to be disclosed to others, reproduced or used for any purpose except as authorized in writing by above.
MFG APPVL.	3/6/81	
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE: .XXX ± .005 .XX ± .01 X/x ± 1/64 ∠° ± 1°		TITLE: ASSY. FRONT PANEL SCANNER (5830)
		SIZE D | 02 | DRAWING NO 004 6100 | REV F
		SCALE 2/1 | SHEET OF 3

WAVETEK®

ASSY.

FRONT PANEL SCANNER (5830)

LIST OF MATERIAL: 02 004 6100 REV F

SIZE D

DATE 2-19-81 SHEET 2 OF 3

	PART NO.	QTY	DESCRIPTION	REMARKS
1	01-320-6100	1	FRONT PANEL SCANNER P.C.B.	
2				
3	125-7414	1	U: HEX SMT TRGR	U1
4	125-0115	2	U: 3 TO 8 LINE DECOD (74LS138)	U2, U14
5	129-3204	1	KEYBOARD ENCODER (8279-5)	U3 (NEC, INTEL, AMD - 8279-5)
6	125-7404	2	U: HEX INVERTER	U4, U5
7	128-3104	3	U: PULL UP NET 10K 2% X9 SIP	U6, U12, U18
8	125-0127	2	U: QD 2 TO 1 MPLXR INV-3-ST	U7, U15
9	125-7493	1	U: 4 BT BIN CTR	U8
10	125-0134	1	U: DL 4 BT BIN CTR (74LS393)	U9
11	125-7402	1	U: QUAD 2 IN NOR GATE	U10
12	128-1477	1	U: RES NET 470 OHM 2% X 8	U11
13	125-7438	1	U: QUAD 2 IN NAND BUFFER o/c	U13
14	128-3105	1	U: PULL UP NET 10K 2% X7 SIP	U16
15	125-0153	1	U: OCT BUF 3-ST (74LS244)	U17
16	125-7430	1	U: 8 IN AND GATE	U19
17	125-7410	1	U: TRIPLE 3 IN NAND GATE	U20
18	120-4451	5	U: DUAL PRPHL DRIVER (75451)	U21, -U25
19	125-0150	1	U: 8 BT ADRS LATCH (74LS259)	U26
20	125-7400	1	U: QUAD 2 IN NAND GATE	U27
21				
22	116-1471	1	R: FX CFLM 470 OHM 5% 1/4W	R1
23	116-3101	3	R: FX CFLM 10K OHM 5% 1/4W	R2, R3, R4
24	116-0151	8	R: FX CFLM 15 OHM 5% 1/4W	R5-R12
25	116-2201	2	R: FX CFLM 2K OHM 5% 1/4W	R13, R14
26	109-6100	1	C: FX TANT 10 µF 20% 20V	C12
27	100-4102	11	C: FX MONO .1µf 50V Z5U	C1-C11
28	100-3104	1	C: FX CER. .01µf +80-20% 100V	C13
29	137-6523	8	Q: SIL PNP (MPS 6523)	Q1-Q8
30				
31	132-0277	3	CR: GER 120 PIV 100MA (IN277)	CR1, CR2, CR3
32				
33				

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TITLE: ASSY. FRONT PANEL SCANNER (5830)

LIST OF MATERIAL: 02 004 6100

REV: SEE SHT 2

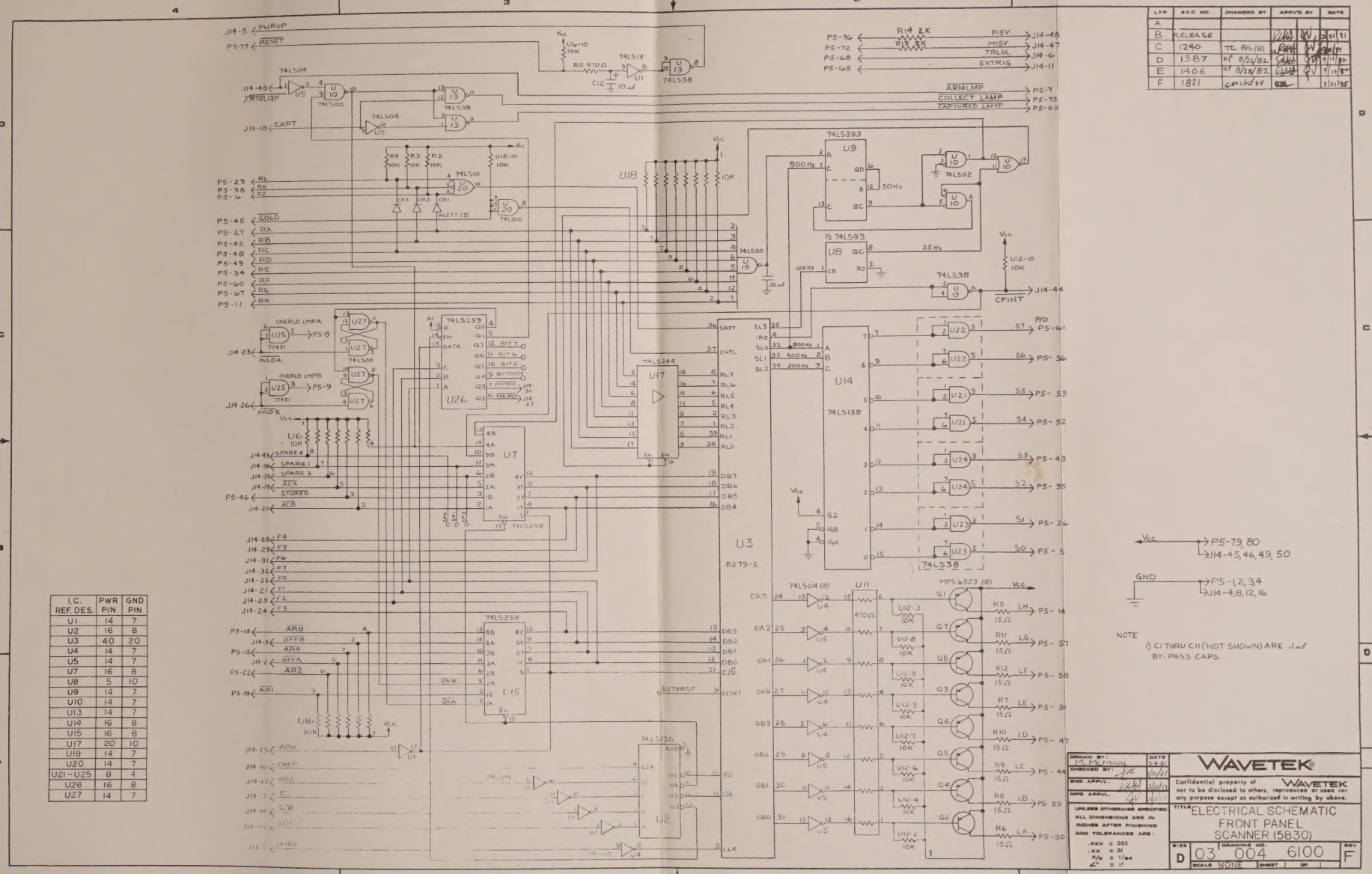
DRAWING NO. | ASSEMBLY | SIZE: D

DATE: 2-19-81

SHEET 3 OF 3

ITEM	PART NO.	QTY	DESCRIPTION	REMARKS
34	354-0021	1	CONN: TERM 50 PIN DIL ST	J14
35	354-0003	1	CONN: TERM WW .025 GOLD PLT.	SP2
36				
37	353-4001	1	SOCKET: IC 40 PIN DIP ST	FOR U3

FORM DR 303



LTR	ECO NO.	CHANGED BY	APPV'D BY	DATE
A				
B	RELEASE			
C	1240	TC 8/10/81		
D	1387	MF 8/26/82		
E	1406	MF 8/28/82		
F	1821	6 en ch'd 84		3/21/85

I.C. REF. DES.	PWR PIN	GND PIN
U1	14	7
U2	16	8
U3	40	20
U4	14	7
U5	14	7
U7	16	8
U8	5	10
U9	14	7
U10	14	7
U13	14	7
U14	16	8
U15	16	8
U17	20	10
U19	14	7
U20	14	7
U21-U25	8	4
U26	16	8
U27	14	7

NOTE
1) C1 THRU C11 (NOT SHOWN) ARE .1mf BY-PASS CAPS.

DRAWN BY: M. McMINN	DATE 3-4-81	WAVETEK
CHECKED BY:	3/11/81	
ENG. APPVL.	3/11/81	
MFG. APPVL.	3/11/81	

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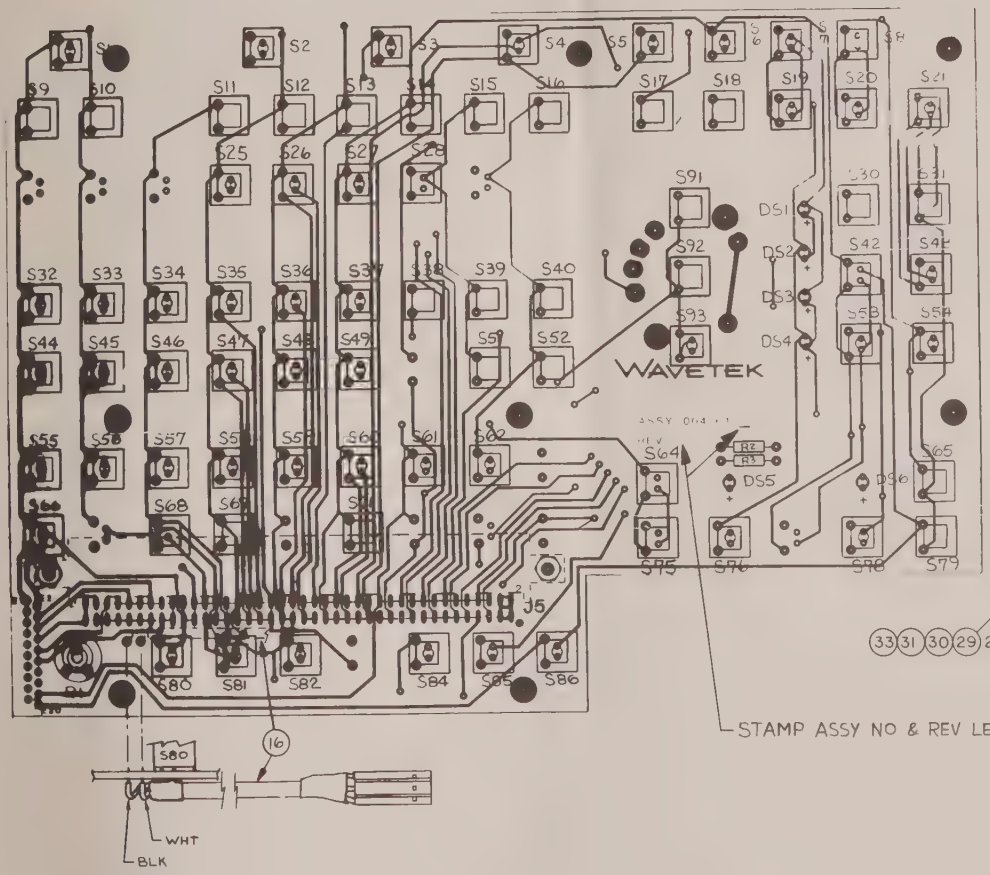
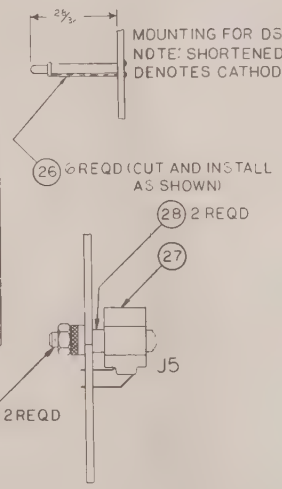
TITLE: ELECTRICAL SCHEMATIC FRONT PANEL SCANNER (5830)

SIZE D | DRAWING NO. 03 004 6100 | REV F | SCALE NONE | SHEET | OF

LTR	ECO NO	CHANGED BY	APPV'D BY	DATE
A	RELEASE			
B	1340	M. McMINN		





SHT. 2 IS "A" SIZE L/M

DRAWN BY M. McMINN	DATE 11-8-83	WAVETEK
CHECKED BY		
ENG APPVL		Confidential property of WAVETEK not to be disclosed to others, reproduced or used for any purpose except as authorized in writing by above.
MFG APPVL		
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE: XXX ± .005, XX ± .01, FR ± 1/64, ∠° ± 1°		TITLE: P.C. ASSY. FRONT PANEL (5830)
		SIZE D · DRAWING NO 02 004 6103 · REV B · SCALE 2:1 · SHEET 1 OF 2

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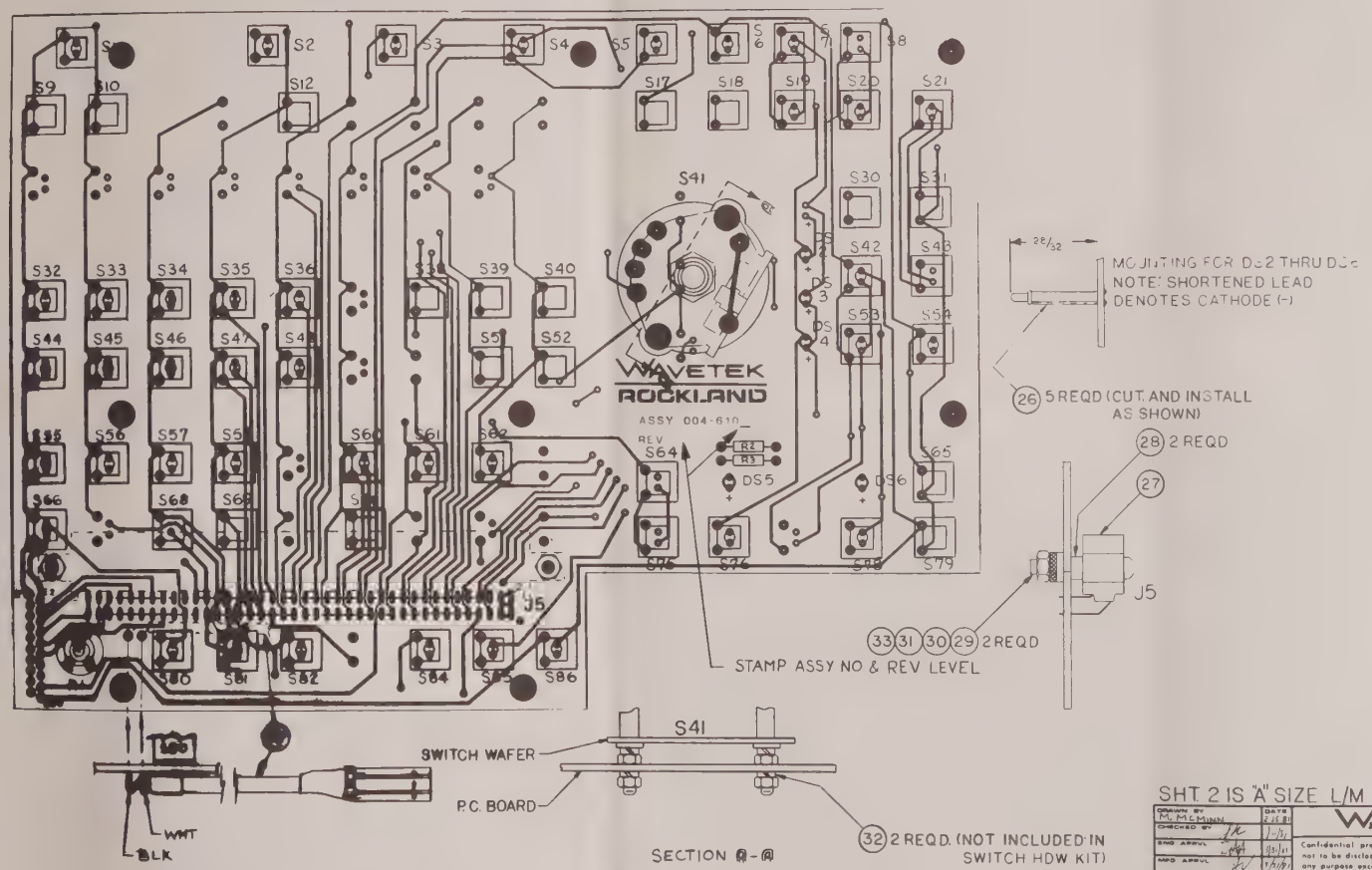
TITLE: P.C. ASSY
FRONT PANEL (5830)

LIST OF MATERIAL: 02 004 6103 | REV: B

DATE: 1/13/82 | SHEET 2 OF 2

	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6103	1	FRONT PANEL P.C. BOARD	
2				
3	008-6101	46	SWITCH ASSY: LTD PUSH BTN 5830	S1 - S7, S19 - S21, S25 - S27,
4				S32 - S37, S44 - S49, S53 - S62,
5				S66, S76, S78, S80 - S82,
6				S84 - S86, S93, S43
7				
8				
9	341-1103	29	S: PB SPST N.O. (NON-LTD)	S8 - S18, S30, S31, S38 - S40,
10				S42, S28, S51, S52, S64, S65
11				S68, S69, S71, S75, S79, S91,
12				S92
13				
14				
15				
16	009-9608	1	CABLE ASSY: TSG LEVEL	
17				
18				
19				
20	118-3106	1	R: VAR. COMP 10K 1/2 RND	R1
21	116-1151	2	R: FX CFLM 1500HM 5% 1/4W	R2, R3
22				
23	171-1605	2	LED: RED, MIN (RL 209)	DS5, DS6
24	171-1604	4	LED: GREEN, MIN (HP)	DS1 - DS4
25				
26	378-5202	A/R	SLVNG: TEFLON #20 AWG	FOR DS2 - DS6
27	350-8003	1	CONN: P.C. .10 40POS DR RT ANG ST	J5 (SULLINS ESC40DTMS)
28	388-3042	2	WASHER: FLT NYL #4 1/4D 3/32T	FOR J5
29	381-4122	2	M SCR: ST CAD PHP x 4-40 x 3/4 PH	FOR J5
30	388-0040	2	WASHER: FLAT STL CAD #4	FOR J5
31	388-1041	2	WASHER: EXT. LK STL CAD #4	FOR J5
32	388-1042	2	WASHER: SPLT LK STNLS #4	FOR S41
33	387-4080	2	NUT: HX ST CD 4-40 x 1/4 AF	FOR J5



SHT. 2 IS "A" SIZE L/M

DRAWN BY M. McMINN	DATE 2/8/81	WAVETEK
CHECKED BY	2/8/81	Confidential property of WAVETEK not to be disclosed to others reproduced or used for any purpose except as authorized in writing by above
ENG APPVL	2/9/81	
MFG APPVL	2/11/81	

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TITLE: ASSY FRONT PANEL (5820)

SIZE D | DRAWING NO 02 004 6102 | REV D

SCALE 2:1 | SHEET 1 OF 2

WAVETEK®

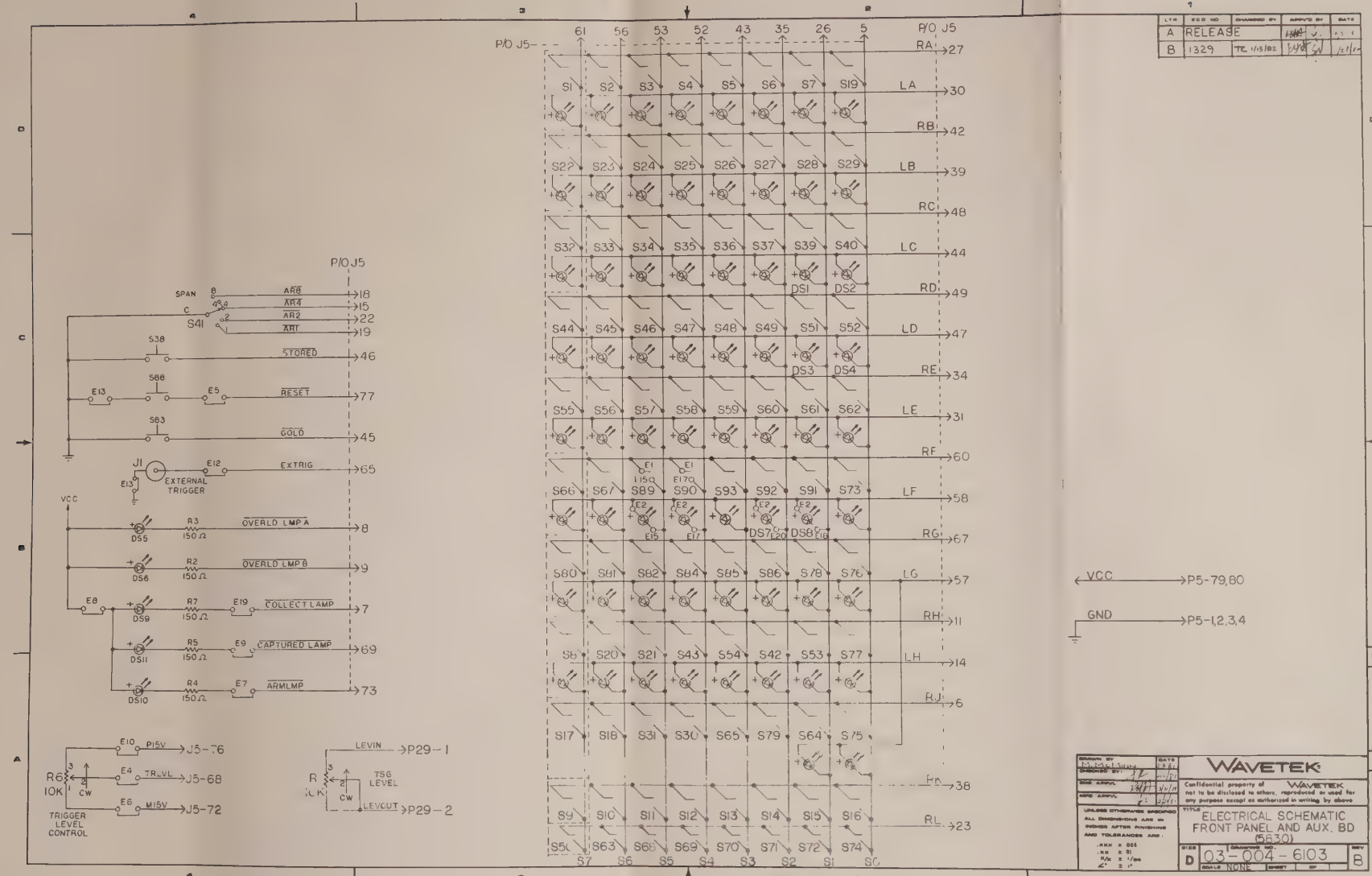
TITLE ASSY
FRONT PANEL (5820)

LIST OF MATERIAL 02 004 6102 | REV D

RELEASE AUTHORITY | ASSY SIZE D | DATE 2·25·81 | SHEET 2 OF 2

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6103	1	FRONT PANEL P.C. BOARD	
2				
3	008-6101	39	SWITCH ASSY: LTD PUSH BTN 5830	S1, S2, S3, S4, S5, S6, S7, S19, S20, S21
4				S32, S33, S34, S35, S36, S42, S44, S45
5				S46, S47, S48, S53, S54, S55, S56, S57
6				S58, S60, S61, S62, S66, S76, S78, S80
7				S81, S82, S84, S85, S86.
8				
9	341-1103	21	S: PB SPST N.O. (NON-LTD)	S8, S9, S10, S12, S17, S18, S30, S31, S38
10				S39, S40, S43, S51, S52, S64, S65, S68,
11				S69, S71, S75, S79.
12				
13	345-1161	1	S: ROT 16 POS BCD PCMT	S41
14				
15				
16	009-9608	1	CABLE ASSY I TSG LEVEL	
17				
18				
19				
20	118-3106	1	R: VAR. COMP. 10K 1/2 RND	R1
21	116-1151	2	R: FX CFLM 1500HM 5% 1/4W	R2, R3
22				
23	171-1605	2	LED: RED, MIN (RL 209)	DS5, DS6
24	171-1604	3	LED: GREEN, MIN (HP)	DS2-DS4
25				
26	378-5202	A/R	SLVNG: TEFLON #20 AWG	FOR DS2-DS6
27	350-8003	1	CONN: P.C. .10 40 POS DR RT ANG. ST	J5 (SULLINS ESC40DTMS)
28	388-3042	2	WASHER: FLT NYL #4 1/4D 3/32T	FOR J5
29	381-4122	2	M SCR: ST CAD PHP X 4-40 X 3/4 PH	FOR J5
30	388-0040	2	WASHER: FLAT STL CAD #4	FOR J5
31	388-1041	2	WASHER: EXT. LK STL CAD #4	FOR J5
32	388-1042	2	WASHER: SPLT LK STNLS #4	FOR S41
33	387-4080	2	NUT: HX ST CD 4-40 x 1/4 AF	FOR J5

FORM NO 304



LTR	ECO NO	CHANGED BY	APPVD BY	DATE
A	RELEASE			
B	1329	TC 1/13/82		

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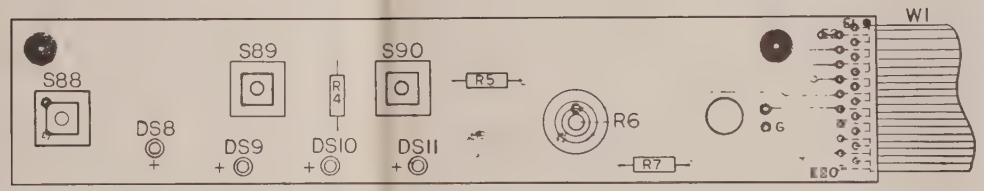
TITLE: ELECTRICAL SCHEMATIC FRONT PANEL AND AUX. BD (5630)

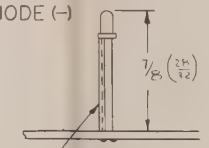
SIZE D | DRAWING NO. 03-004-6103 | REV B

SCALE NONE | SHEET

LTR	ECO NO	CHANGED BY	APPV'D BY	DATE
B	RELEASE			3/31/81
C	1243	TR 8-20-81		10/16/81
D	1345	TR 2-10-82		3/9/82



MOUNTING FOR DS8 THRU DS11
NOTE: SHORTENED LEAD
DENOTES CATHODE (–)



(14) —— CUT AND INSTALL AS SHOWN – 4 PL

SHT. 2 IS "A" SIZE L/M

DRAWN BY M. McMINN	DATE 2-26-81	
CHECKED BY		
ENG APPVL		
MFG APPVL		

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE
XXX ± .005
XX ± .01
X/x ± 1/64
∠° ± 1°

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TITLE
ASSY.
AUX. FRONT PANEL (5830)

SIZE	DRAWING NO	REV
C	02 004 6104	D

SCALE 2:1 SHEET 1 OF 2

WAVETEK®

TITLE: ASSY. AUX. FRONT PANEL (5830)

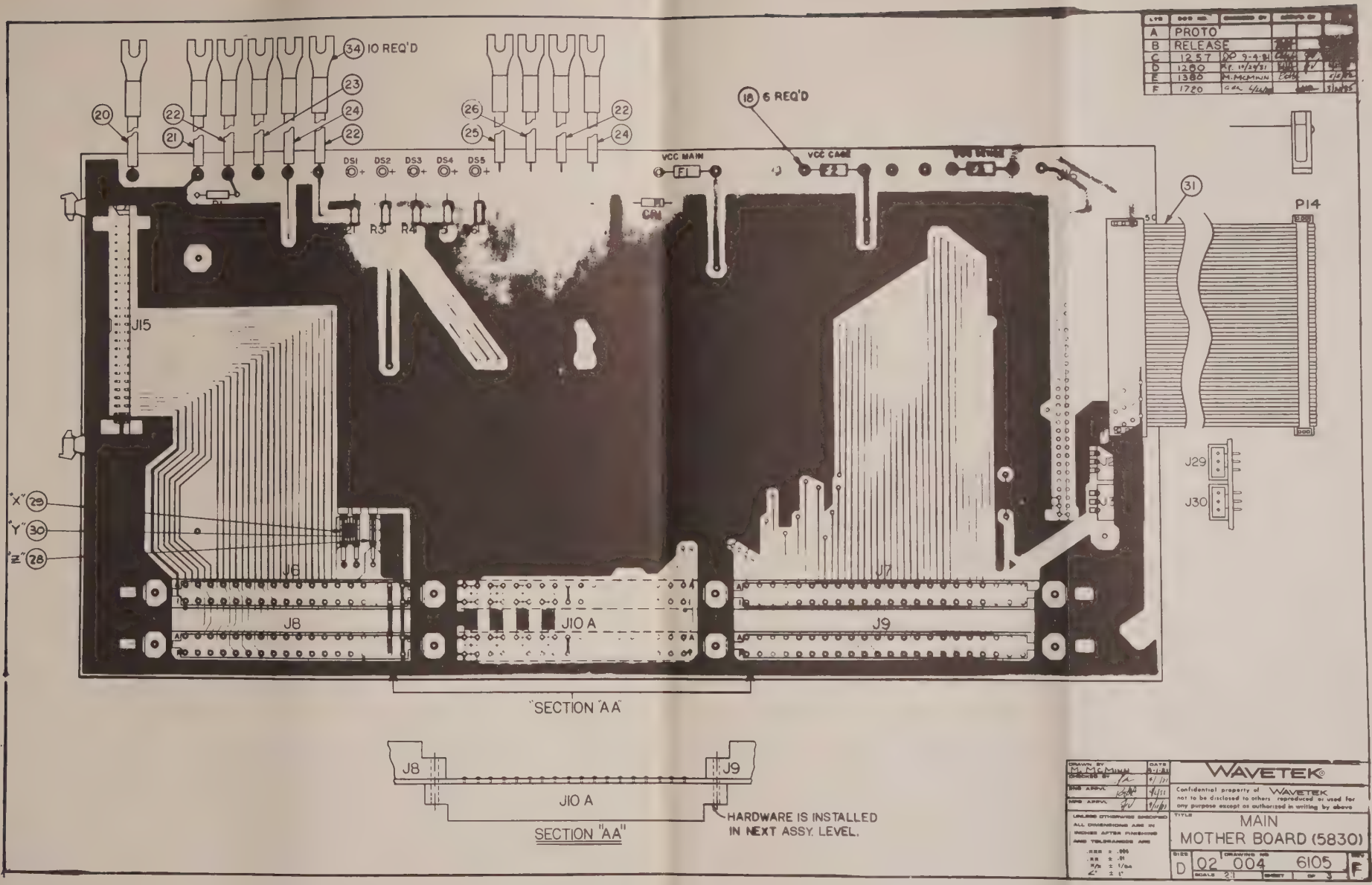
LIST OF MATERIAL: 02 004 6104 REV D

DRAWN RMH APPR gv SIZE C

DATE 2-26-81 SHEET 2 OF 2

ITEM	PART NO.	QTY	DESCRIPTION	REMARKS
1	01-320-6104	1	AUX FRONT PANEL P.C. BD	
3	341-1103	1	S: P.B. SPST N.O. NON-LIT	S88
4	008-6101	2	SWITCH ASSY: LTD PUSH BTN 5830	S89, S90
6	354-2002	1	CONN: FLEX STRIP 20 POS 1" .050	W1 (ANSLEY FSP-11C-20)
9	116-1151	3	R: FX CFLM 150 OHM 5% 1/4 W	R4, R5, R7
10	118-3106	1	R: VAR. COMP. 10K 1/2 RND	R6
12	171-1605	1	LED: RED, MIN (RL209)	DS8
13	171-1604	3	LED: GREEN MIN (HP)	DS9-DS11
14	378-5202	A/R	SLVNG: TEFLON # 20 AWG.	FOR DS8-DS11

FORM NO 2015



LTR	DWG NO	DESCRIPTION	APPROVED
A	PROTO		
B	RELEASE		
C	1257	9-4-81	
D	1280	10/27/81	
E	1380	M. McMINN	
F	1720	4/4/82	

DRAWN BY M. McMINN DATE 8-1-81
CHECKED BY 8/11/81
ENG APPVL 9/11/81
MFG APPVL 9/11/81

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TITLE
MAIN
MOTHER BOARD (5830)

SIZE D | DRAWING NO 02 004 6105 | REV F

SCALE 2:1 | SHEET | OF 3

WAVETEK®

TITLE: MAIN MOTHER BOARD (5830)

LIST OF MATERIAL: 02 004 6105

REV: F

RELEASE AUTHORITY: [illegible] | DRAWN: [illegible] | SIZE: D | DATE: | SHEET 2 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	350-3602	4	CONN: P.C. .156 18POS DR ST	J6, J8, J10A, J10B
2	350-4401	2	CONN: P.C. .156 22POS DR ST	J7, J9
3				
4				
5	352-5002	1	PLUG: HDR 50P DIL RT ANG ST LK	J15
6	354-0305	2	CONN: R/A PCMT 3 POS JACK	J29-J30 AMP 3-102203-4
7				
8	116-9471	1	R: FX CFLM 4.7 OHM 5% 1/4 W	R1
9	116-1151	3	R: FX CFLM 150 OHM 5% 1/4 W	R2, R5, R6
10	116-1681	2	R: FX CFLM 680 OHM 5% 1/4 W	R3, R4
11	116-0471	1	R: FX CFLM 47 OHM 5% 1/4 W	R7
12	130-0110	1	CR: SIL RECT 50PIV 1A (IN4001)	CR1
13	171-1605	5	LED: RED, MIN (RL209!)	DS1-DS5
14				
15				
16	29-00011	2	FUSE: PICO 10A 125VLF 275010	F1, F2
17	165-4015	1	FUSE: PICO 1/8A 125VLF 275.125	F3
18	389-8006	6	EYELET: .089D X .093L	
19				
20	378-1494	A/R	WIRE: #18 AWG STR WHITE	
21	378-1454	A/R	WIRE: #18 AWG STR GREEN	
22	378-1404	A/R	WIRE: #18 AWG STR BLACK	
23	378-1444	A/R	WIRE #18 AWG STR YELLOW	
24	378-1424	A/R	WIRE #18 AWG STR RED	
25	378-1222	A/R	WIRE #14 AWG STR RED	
26	378-1204	A/R	WIRE #14 AWG STR BLACK	
27				
28	009-9601	1	CABLE ASSY: MB/CRT Z 5830	
29	009-9611	1	CABLE ASSY: MB/CRT X 5830	
30	009-9612	1	CABLE ASSY: MB/CRT Y 5830	
31	009-9616	1	CABLE ASSY: MB/F/P SCANNER	P14
32				
33				

FORM NO 304

WAVETEK®

TITLE: MAIN MOTHER BOARD (5830)

LIST OF MATERIAL: 02 004 6105

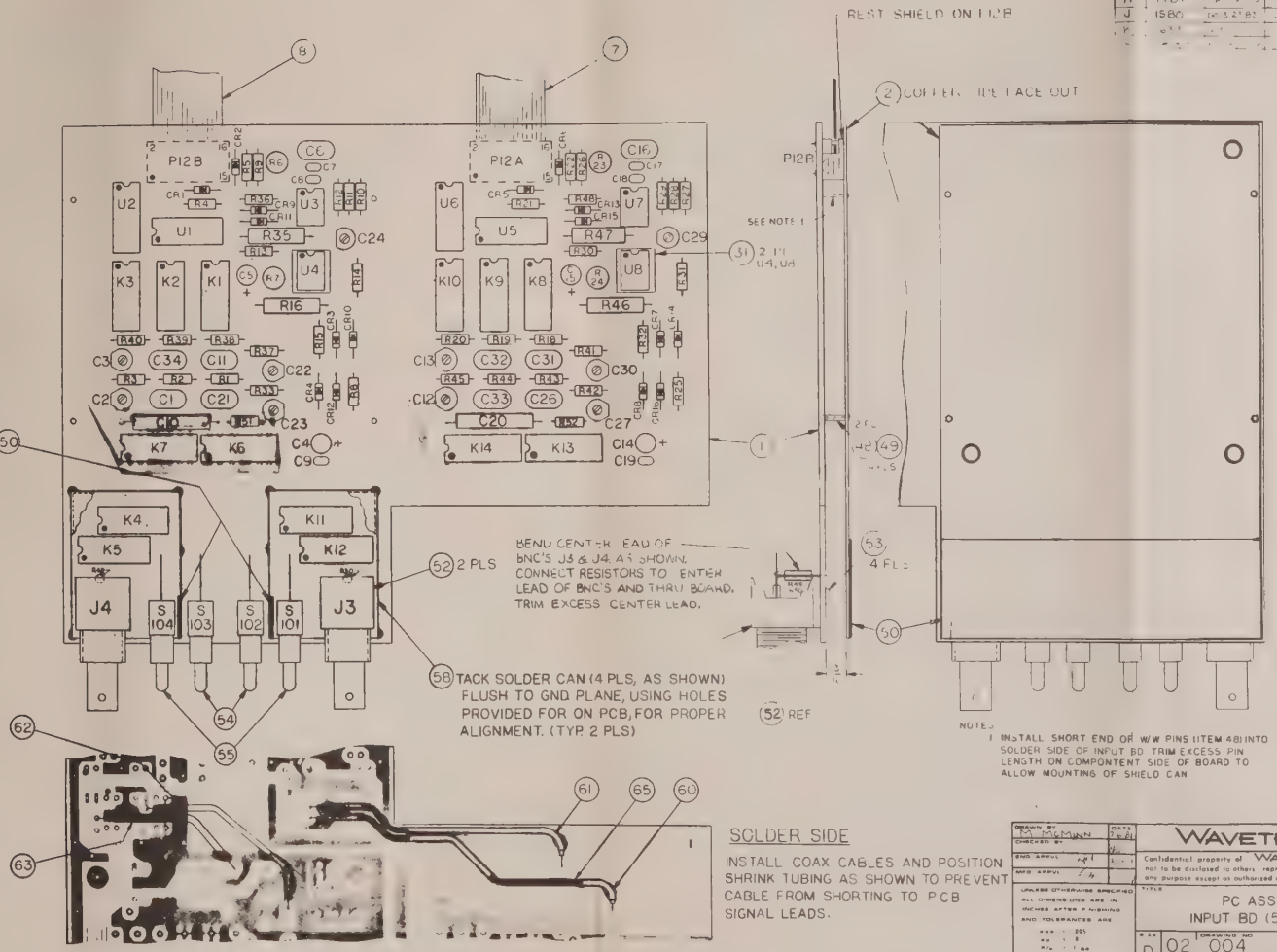
REV: E

RELEASE ASSEMBLY | DRN BY | CHK BY | APPD BY | SIZE: D | DATE | SHEET 3 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	359-0013	10	LUG: CRIMP #6 SPADE 12 AWG.	
35				
36				
37	320-6105	1	PC: MAIN BOARD (5830)	

FORM NO 304

LTR	ECO NO	CHANGED BY	APPVD BY	DATE
D	RELEASE		RH TM	6 78
E	1228	M McMINN		
F	1451	M McMINN		
G	1443	M McMINN		
H	1481	ND 3 83		
J	1580	10 3 27 81		


REST SHIELD ON 1128
COPPER TAPE OUT
P12B
P12A
P12P
SEE NOTE 1
2 PL U4, U8
PLACE TAPE .5X.5 IN POSITIONS SHOWN TO PREVENT SHORTING BETWEEN THE SWITCHES AND THE CANS.
BEND CENTER LEAD OF BNC'S J3 & J4 AS SHOWN. CONNECT RESISTORS TO CENTER LEAD OF BNC'S AND THRU BOARD. TRIM EXCESS CENTER LEAD.
2 PLS
4 PLS
TACK SOLDER CAN (4 PLS, AS SHOWN) FLUSH TO GND PLANE, USING HOLES PROVIDED FOR ON PCB, FOR PROPER ALIGNMENT. (TYP 2 PLS)
REF
NOTE:
1 INSTALL SHORT END OF W/W PINS (ITEM 48) INTO SOLDER SIDE OF INPUT BD TRIM EXCESS PIN LENGTH ON COMPONTENT SIDE OF BOARD TO ALLOW MOUNTING OF SHIELD CAN
SOLDER SIDE
INSTALL COAX CABLES AND POSITION SHRINK TUBING AS SHOWN TO PREVENT CABLE FROM SHORTING TO PCB SIGNAL LEADS.

DRAWN BY M McMINN	DATE 7 81	WAVETEK	
CHECKED BY		Confidential property of WAVETEK not to be disclosed to others reproduced or used for any purpose except as authorized in writing by above	
ENG APPVL		TITLE PC ASSY INPUT BD (5830)	
MFG APPVL		SIZE D	DRAWING NO 02 004 6110 REV L
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE .XXX ± .005 .XX ± .02 FRAC ± 1/64 ANGLE ± 1°		SCALE 2:1	SHEET 1 OF 3

WAVETEK®

INPUT AMPLIFIER

LIST OF MATERIAL: 02|004 6110 | REV: L

SIZE: D | DATE | SHEET 2 OF 3

	PART NO.	QTY	DESCRIPTION	REMARKS
1	01-320-6110	1	PC: INPUT BOARD 5830	
2	01-320-6111	1	PC: SHIELD PLATE	
3				
4	120-2324	4	U: QD LIN OP AMP (LM324N)	U1, U2, U5 & U6
5	120-1018	2	U: LIN OP-AMP DIL (NE5534A)	U3, U7
6	138-5566	2	Q: DL MATCH FET (NPD5566)	U4, U8
7	02-009-9609	1	CABLE ASSY: FILTER/INPUT CHA	
8	02-009-9610	1	CABLE ASSY: FILTER/INPUT CHB	
9				
10	175-1509	6	RELAY: REED DIP 2A W/DIODE 24V	K1, K2, K3, K8, K9 & K10 (WABASH 815-203-11)
11				
12	175-1510	6	RELAY: REED DIP 1C W/DIODE	K4, K5, K6, K11, K12, K13 (WABASH 815-243-11)
13				
14	175-1508	2	RELAY: REED DIP 1A W/DIODE 24V	K7, K14 (WABASH 815-104-11)
15	116-0821	2	R: FX MFLM 82Ω 5% 1/4 W	R51, R52
16	112-1986	6	R: FX MFLM 19.8K .1%, 1/10W, T10	R1, R2, R43 & R44, R11, R28
17	114-1966	8	MFLM 1.96M, .1%, 1/10W, T10	R3, R20, R33, R37, R40, R41, R42 & R45
18	116-3101	2	MFLM 10K, 5%, 1/4W	R4, R21
19	116-1101	4	FX CFLM 100Ω, 5%, 1/4 W	R5, R15, R22, R32
20	118-1502	4	VAR CMT 500Ω, 1/4 RD	R6, R7, R23, R24
21	116-2471	4	FX CFLM 4.7K, 5%, 1/4W	R8, R25, R36, R48
22	112-1276	2	FX MFLM 12.7K .1%, 1/10W T10	R9, R26
23	111-3056	2	3.05K,	R10, R27
24				
25	111-2006	2	2K	R12, R29
26	111-2436	4	FX MFLM 2.43K, .1%, 1/10W T10	R13, R14, R30, R31
27	111-1003	4	1K, 1%, 1W	R16, R35, R46, R47
28				
29	113-2186	4	R: 218K .1%, 1/10W T10	R18, R19, R38, R39
30	116-1471	2	R: FXD CFLM 470Ω 5% 1/4W.	R49, R50
31	353-0803	2	SOCKET: 8 PIN DIL ST	XU4, XU8
32				
33				

FORM NO. REV

WAVETEK®

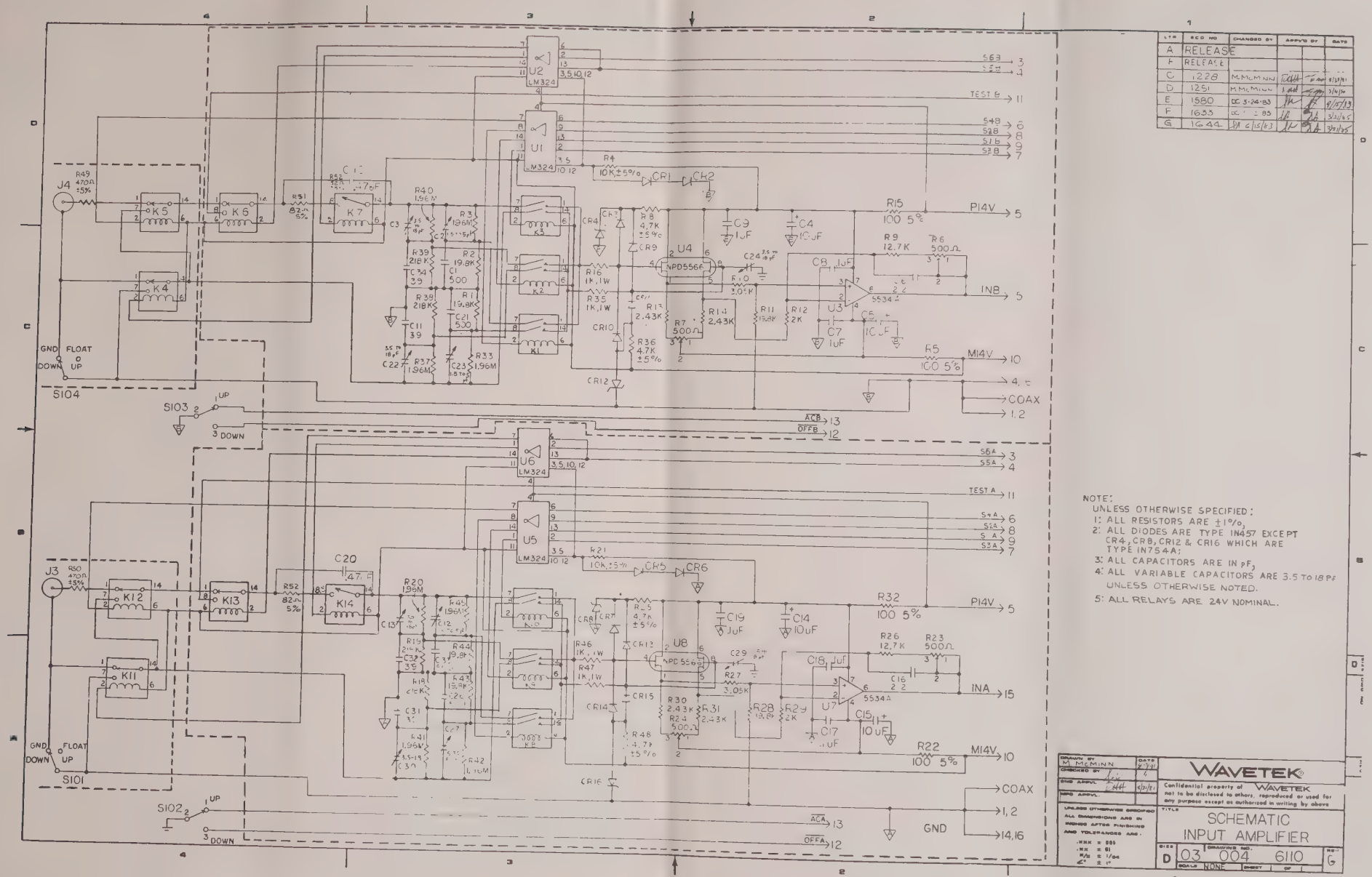
TITLE: INPUT AMPLIFIER

LIST OF MATERIAL: 02 004 6110 | REV: L

DRAWN BY: [illegible] | CAGE SIZE: D | DATE: | SHEET 3 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	101-1500	4	C: FX MICA DP 500pf, 10%, 500V	C1, C21, C26 & C33
35	108-0050	4	C: VAR CER 1.5-5pf, 250V	C2, C12, C23, C27
36	109-6100	4	C: FX TANT 10 uf, 20%, 20V	C4, C5, C14, C15
37	100-9229	2	C: FX CER 2.2pf, .5pf, 500V NPO	C6, C16
38	100-7104	6	C: FX MMO .10f 50V, Z5U	C7, C8, C9, C17, C18, C19
39	105-4470	2	C: FX PLSTR, .47uf, 5%, 100V	C10, C20
40	101-0390	4	C: FX MICA DP 39pf, 10%, 500V	C11, C31, C32, C34
41				
42	108-0180	6	C: VAR. CER 3.5-18pf 250V	C3, C13, C22, C24, C29, C30
43				
44				
45	132-0457	12	CR: SL LW LK 70PIV, 200MW (IN457)	CR1-CR3, CR5-CR7, CR9-CR11, CR13-CR15
46	131-9685	4	CR: SL ZR 6.8V, 5%, (IN754A)	CR4, CR8, CR12, CR16
47				
48	354-0007	4	CONN: TERM PIN W/W .025 (2 END)	
49	378-5202	1/2"	SLVNG: TEFLON #20AWG	2 X 3/16"
50	377-0201	4.5"	TAPE: URETHANE BRN 1"	
51				
52	351-0016	2	CONN: BNC PCB MOUNT	J3 & J4 (AMP# 226990-1)
53	386-2051	4	MSCR: 2-56 x 5/16 - SELF TAPPING	FOR J3 & J4 (AMP# 22987-4)
54	340-1211	2	S: TOG SPDT ON-OFF-ON RA/V/PC	S102, S103 (C&K 7103 MD9 AV2 BE)
55	340-1212	2	S: TOG SPDT ON-ON RA/V/PC	S101, S104 (C&K 7101 MD9 AV2 BE)
56				
57				
58	310-0903	2	SHIELD CAN: INPUT BD (SMALL)	
59				
60	009-0584	1	CABLE ASSY SHLD RGD FMD A COM	
61	009-0585	1	↕ ↕ ↕ ↕ ↕ A HOT	
62	009-0586	1	B COM	
63	009-0587	1	CABLE ASSY SHLD RGD FMD B HOT	
64				
65	378-5520	A/R	SHRINK TBG PLYFIN BLACK 1/8"	
66				

FORM NO 311



LTR	ECO NO	CHANGED BY	APPVD BY	DATE
A	RELEASE			
F	RELEASE			
C	1228	M.McMINN		8/23/91
D	1251	M.McMINN		3/6/92
E	1580	DC 3-24-93		8/15/93
F	1633	DC 7-8-93		3/21/95
G	1644	SA 6/15/93		3/21/95

NOTE:
UNLESS OTHERWISE SPECIFIED:
1: ALL RESISTORS ARE ±1%,
2: ALL DIODES ARE TYPE 1N457 EXCEPT CR4, CR8, CR12 & CR16 WHICH ARE TYPE 1N754A;
3: ALL CAPACITORS ARE IN pF,
4: ALL VARIABLE CAPACITORS ARE 3.5 TO 18 pF UNLESS OTHERWISE NOTED.
5: ALL RELAYS ARE 24V NOMINAL.

DRAWN BY M.McMINN DATE 8/23/91
CHECKED BY
ENG APPVL
MFG APPVL 6/21/93

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE: .XXX ± .005, .XX ± .01, X/8 ± 1/64, ∠° ± 1°

WAVETEK
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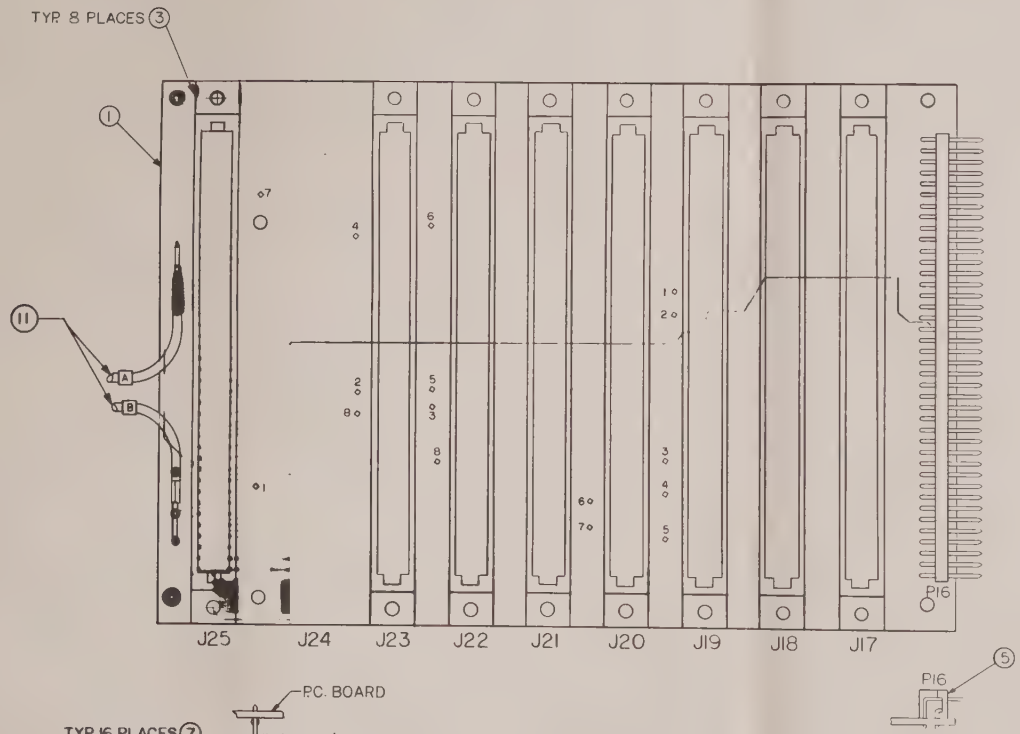
TITLE
SCHEMATIC
INPUT AMPLIFIER

SIZE D | 03 004 6110 | REV G
SCALE NONE | SHEET OF

LTR	ECO NO	CHANGED BY	APPV'D BY		DATE
A	PROTO				
B	RELEASE				3/31/81
C	1245	TC 8/20/81			
D	1319				
E	1397				
F	1625				
G	1672				



1) ALL W/W PINS ARE TO EXTEND THRU BOARD AND WIRE WRAPPED FROM SOLDER SIDE.
2) WIRE WRAP PIN 1 TO PIN 1, PIN 2 TO PIN 2, ETC.

SHT. 2 IS "A" SIZE L/M

DRAWN BY M. McMINN	DATE 12/80
CHECKED BY	
ENG APPVL	
MFG APPVL	

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE: .XXX ± .005, XX ± .01, X/x ± 1/64, ∠° ± 1°

WAVETEK

Confidential property of WAVETEK not to be disclosed to others, reproduced or used for any purpose except as authorized in writing by above

TITLE: ASSY CARD CAGE MOTHER BOARD

SIZE D | DRAWING NO 02 004 - 6115 | REV G

SCALE 2/1 | SHEET 1 OF 2

WAVETEK®

TITLE: ASSY. CARD CAGE MOTHER BOARD

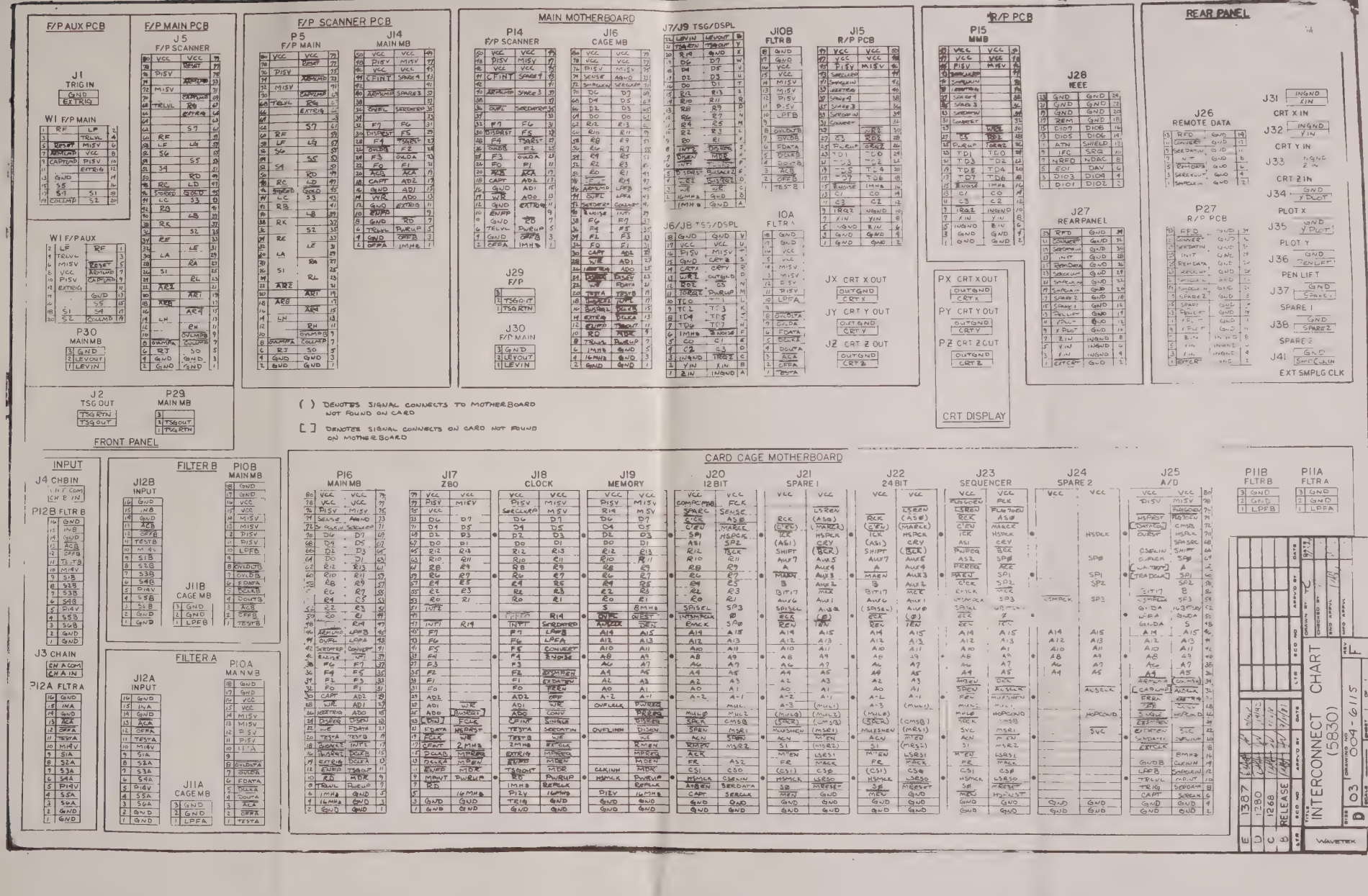
LIST OF MATERIAL: 02 004 6115

REV: F

RELEASE AUTHORITY | DRN BY: DMA gv | ASSY SIZE: D | DATE: 3/31/81 | SHEET 2 OF 2

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6115	1	CARD CAGE MOTHER BOARD P.C. BD.	
3	350-8002	8	CONN: PC .100 40 P DR ST	AMP # 530841-9
5	352-8001	1	PLUG: HDR 80 P DIL RT ANG ST	AMP # 4-87563-0
7	354-0007	16	CONN: TERM PIN .025 WW (2 END)	
9	378-1961	A/R	WIRE: #30 AWG SLD KYN BLUE	
11	009-9606	2	CABLE ASSY: LPF OUTPUT, 5830	

FORM NO 304


F/P AUX PCB
J1
TRIGIN
GND
EXTRIG
W1 F/P MAIN
W1 F/P AUX
P30
MAINMB
J2
TSG OUT
TSG RTN
TSG OUT
P29
MAIN MB
FRONT PANEL
F/P MAIN PCB
J5
F/P SCANNER
F/P SCANNER PCB
P5
F/P MAIN
J14
MAIN MB
MAIN MOTHERBOARD
P14
F/P SCANNER
J16
CAGE MB
J7/J9 TSG/DSPL
J6/J8 TSS/DSPL
J10B
FLTR B
J15
R/P PCB
J29
F/P
J30
F/P MAIN
J10A
FLTR A
R/P PCB
P15
MMB
J28
IEEE
J27
REAR PANEL
PX CRT X OUT
PY CRT Y OUT
PZ CRT Z OUT
JX CRT X OUT
JY CRT Y OUT
JZ CRT Z OUT
CRT DISPLAY
REAR PANEL
J26
REMOTE DATA
P27
R/P PCB
J31 INGND XIN
CRT X IN
J32 INGND YIN
CRT Y IN
J33 INGND ZIN
CRT Z IN
J34 GND YDLOT
PLOT X
J35 GND XDLOT
PLOT Y
J36 GND PENLEFT
PEN LIFT
J37 GND SPARE1
SPARE 1
J38 GND SPARE2
SPARE 2
J41 GND SMPCLKIN
EXT SMPLG CLK
( ) DENOTES SIGNAL CONNECTS TO MOTHERBOARD NOT FOUND ON CARD
[ ] DENOTES SIGNAL CONNECTS ON CARD NOT FOUND ON MOTHERBOARD
INPUT
J4 CHBIN
J12B FLTR B
J3 CHAIN
J12A FLTR A
FILTER B
J12B INPUT
J11B CAGE MB
P10B MAINMB
FILTER A
J12A INPUT
J11A CAGE MB
P10A MAINMB
CARD CAGE MOTHERBOARD
P16 MAIN MB
J17 Z80
J18 CLOCK
J19 MEMORY
J20 12 BIT
J21 SPARE 1
J22 24 BIT
J23 SEQUENCER
J24 SPARE 2
J25 A/D
P11B FLTR B
P11A FLTR A
INTERCONNECT CHART (5830)
DRAWING NO 004-6115
SIZE D
SCALE 03
WAVETEK
REVISIONS
E 1387
D 1280
C 1268
B RELEASE

LTR	DESCRIPTION	ORIGINATOR	APPROVED BY	DATE
D	RELEASE			
E	1281		LAT	
F	1383			
G	1432	RG		
H	1502	RG		
J	1557	DC 2-16-83		
K	1615	DC 4-7-83		
L	1681	cam 6/6/83		
M	1828	cam 10/6/83		
N	5076	TM		

2 REV.

(124) UNDER U1

(126) INSTALL ON LEADS OF C60 & MOUNT ON SOLDER SIDE IN PADS ADJOINING PINS 4 & 8 OF U32.

(130)

(1)

DOT DENOTES PIN 1 TYP (33) PLS

(126) INSTALL ON LEADS OF C4 & L1.

1 OR BOTH CAPS MAYBE ADDED IN TEST

2 REQD

(129)(128) WIRE BETWEEN POINTS A-A.

(1) REF

(121)(122)(123)(125)(127) 2 REQD

(131) GND TP (POSITION AS SHOWN)

(119) MOUNT ON SOLDER SIDE.

(120)

SHTS 2-5 ARE "A" SIZE L/M

DR	DATE 10/5/83	WAVETEK
CHKD	10/7/83	
ENG.	10/7/83	A/D & SAMPLE/HOLD PCB ASSY
MFG.	10/5/83	
ISSUED		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE

.XX ±.005	.XXX ±.001	ANG ±1°

MAT

FIN

MODEL NO	DRAWING NO	REV
5820	02-004-6120	N

SCALE 2/1 | CODE IDENT 23338 | SHEET 1 OF 5

WAVETEK®

TITLE: ASSEMBLY
A TO D CONVERTER SAMPLE & HOLD

LIST OF MATERIAL: 02-004-6120

REV: N

SEPARATE AUTHORITY | CODE IDENT | DRAWN | APPD | SIZE: D

DATE: 8-21-79

SHEET 2 OF 5

ITEM NO	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6120	1	A TO D CONVERTER S.&H., 5830	
2				
3	125-0113	1	U: DUAL 4 TO 1 MPLXR (74LS153)	U1
4	128-3104	1	U: PULL-UP NET 10K 2% x9 (SIP)	U2
5	125-0150	3	U: 8 BIT ADRS LATCH (74LS259)	U3, U4, U6
6	125-0139	1	U: OCT D-FLIP W/CLR (74LS273)	U5
7	125-7474	5	U: DUAL TYP D-FLP/FLP (74LS74)	U7, U8, U15, U18, , U22
8	125-7437	1	U: QUAD 2IN NAND BUFFER (74LS37)	U9
9	125-7414	1	U: HEX SMT TRGR (74LS14)	U10
10	124-7432	2	U: QUAD 2IN OR GATE (74S32)	U11, U12
11	125-0148	1	U: QD 2IN NAND SMTTGR (74LS132)	U13
12	125-7408	1	U: QUAD 2IN AND GATE (74LS08)	U16
13	125-7451	1	U: DUAL 2 WIDE 2IN AOI GATE (74LS51)	U17
14	125-0134	1	U: DUAL 4 BIT BIN CTR (74LS393)	U20
15	124-7486	1	U: QUAD 2IN XOR GATE (74S86)	U21
16	128-2151	1	U: PULL UP NETWORK 1.5K 2% x15	U24
17	122-2504	1	U: 12 BIT SUCC APPROX. REG. (2504)	U25
18				
19	120-3311	1	U: ANALOG VOLTAGE COMP. (LM311)	U26
20	120-2084	1	U: QUAD LIN BIFET OP-AMP (TL084)	U27
21	120-1018	2	U: LIN BIFET OP-AMP DIL (5534)	U28, U29
22	120-3810	1	U: DIFF COMPARATOR (72810)	U32
23	120-1012	2	U: VOLTAGE FOLLOWER (LM310)	U31, U33
24	128-2223	1	U: RES NET 2.2K 1% x8	U23
25	125-7432	1	U: QUAD 2IN OR GATE (74LS32)	U14
26	125-0112	1	U: QUAD 2IN MPLX (74LS157)	U30
27	150-1251	1	L: FXD 250UHY, HI-CURR.	L1
28	150-1100	1	L: FXD 100uh	L2
29	124-7474	1	U: DUAL TYP D FLIP FLOP (74S74)	U19
30	116-0471	2	R: FX CFLM 47Ω 5% 1/4W	R1, R6
31	116-1391	2	R: " COMP 390Ω " "	R2, R3
32	116-2331	7	R: " " 3.3KΩ " "	R4, R5, R16, R27, R50, R51, R29,
33	116-3681	1	R: " " 68KΩ " "	R7

FORM NO 304

WAVETEK®

TITLE SEE SHEET 2

LIST OF MATERIAL

02-004-6120

REV SEE SHT 2

SIZE D

DATE 8·21·79

	PART NO.	QTY	DESCRIPTION	REMARKS
34	116-5121	1	R: FX CFLM 1.2MΩ 5% 1/4W	R28
35	116-5101	3	R: FX CFLM 1.0MΩ 5% 1/4W	R29, R214, R215
36	113-1021	1	R: FX MFLM 102KΩ 1% 1/10W	R210
37	112-3400	1	R: FX MFLM 34.0KΩ 1% 1/10W	R211
38	116-3101	5	R: FX CFLM 10KΩ 5% 1/4W	R212, R213, R217, R218, R41
39	116-3471	4	R: 〃 〃 47KΩ 〃 〃	R219, R221, R48, R52
40	116-2471	1	R: 〃 〃 4.7KΩ 〃 〃	R220,
41	116-1221	2	R: 〃 〃 220Ω 〃 〃	R222, R224
42	116-1331	4	R: 〃 〃 330Ω 〃 〃	R223, R37, R56, R61
43	116-0621	2	R: FX CFLM 62Ω 5% 1/4W	R225, R226
44				
45				
46				
47				
48	111-8250	1	R: FX MFLM 8.25KΩ 1% 1/10W	R31
49	110-8251	3	R: 〃 〃 8.25Ω 〃 〃	R32, R33, R38
50	110-5491	1	R: 〃 〃 549Ω 〃 〃	R43
51				
52	111-1001	1	R: 〃 〃 1.0KΩ 〃 〃	R39
53	110-7501	1	R: FX MFLM 750Ω 1% 1/10W	R40
54	118-3102	2	R: VAR CMT 10K 3/8 SQFM 18T	R44, R45
55	116-0101	1	R: FX CFLM 10Ω 5% 1/4W	R111
56	116-1561	1	R: FX CFLM 560Ω 5% 1/4 W	R47
57				
58	111-3161	2	R: FX MFLM 3.16KΩ 1% 1/10W	R64, R67
59				
60	118-3100	2	R: VAR CMT 10K 1/4 ROUND	R270, R271
61	118-0501	5	R: 〃 〃 50Ω 〃 〃	R272, R273, R274, R275, R76
62	112-1271	4	R: 〃 〃 12.7K, 1%, 1/10 W	R65, R68, R66, R69
63	111-3306	1	R: FX MFLM 3.300KΩ .1% T10	R277
64	111-1656	1	R: 〃 〃 1.6500KΩ 〃 〃	R278
65	110-8256	6	R: 〃 〃 825Ω 〃 〃	R279, R280, R281, R282, R283, R284
66	110-8157	1	R: 〃 〃 815Ω .05% 〃	R285

WAVETEK®

TITLE SEE SHEET #2

LIST OF MATERIAL 02-004-6120 REV SEE SHT 2

RELEASE AUTHORITY | DRAWN BY | PLM 4/7 | ASSY SIZE D | DATE 8-21-79 | SHEET 4 OF 5

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
67	110-8006	3	R: FX MFLM 800Ω .1% T10	R86, R87, R88
68	110-4026	6	R: 402Ω	R89, R91, R93, R95, R97, R99
69	113-2006	3	R: 200KΩ	R90, R92, R94
70	113-1006	1	R: 100KΩ	R96
71	112-5006	1	R: 50KΩ	R98
72	112-2506	1	R: 25.0KΩ .1%	R100
73	110-4127	1	R: 412Ω .1%	R101
74	112-1257	1	R: 12.5KΩ	R102
75	110-4327	1	R: 432Ω	R103
76	111-6257	1	R: 6.25KΩ .1%	R104
77	110-4766	1	R: 476Ω .1%	R105
78	111-3126	1	R: 3.125KΩ	R106
79	110-5496	1	R: 549Ω	R107
80	111-1566	1	R: 1.563KΩ	R108
81	110-7816	2	R: FX MFLM 781.2Ω .1% T10	R109, R110
82				
83	110-2210	1	R: FX MFLM 221Ω 1% 1/10W	R36
84	116-1101	1	R: FX CFLM 100Ω 5% 1/4W	R30
85	109-6100	9	C: FX TANT 10uf 20% 20V	C1, C14, C15, C22, C35, C37, C39, C54, C33
86	100-4102	40	C: SKYCAP .1uf 50V Z5U	C2, C3, , C6, C7, C8, C9, C10, C12, C13, C16, C17, C18,
87				C19, C21, C23, C24, C25, C27, C30, C31, C32, , C36,
88				C38, , C43, , C46, C47, , C49, C50, C51, C52, C53,
89				C55, C59 C60, C41, C64, C67, C68, C69, C70
90	109-6470	1	C: FX ELECT 47uf 20% 63V	C4
91	101-1110	2	C: FX MICA DIP 110pf 5% 500V	C11, C28, C73
92	101-1240	3	C: FX MICA DIP 240pf 10% 500V	C20, C58, C63
93	101-0050	3	C: FX MICA DIP 5pf 10% 500V	C26, 56, 57
94	100-2105	2	C: FX CER .001uf 10% 500V	C29, C5
95	108-0050	2	C: VAR CER 1.5-5 PF 250V	C71 & C72 SELECTED IN TEST
96	101-1910	1	C: FX MICA DIP 910 pf 1% 500V	C44
97				
98				
99				

FORM NO 304

WAVETEK®

TITLE SEE SHEET #2

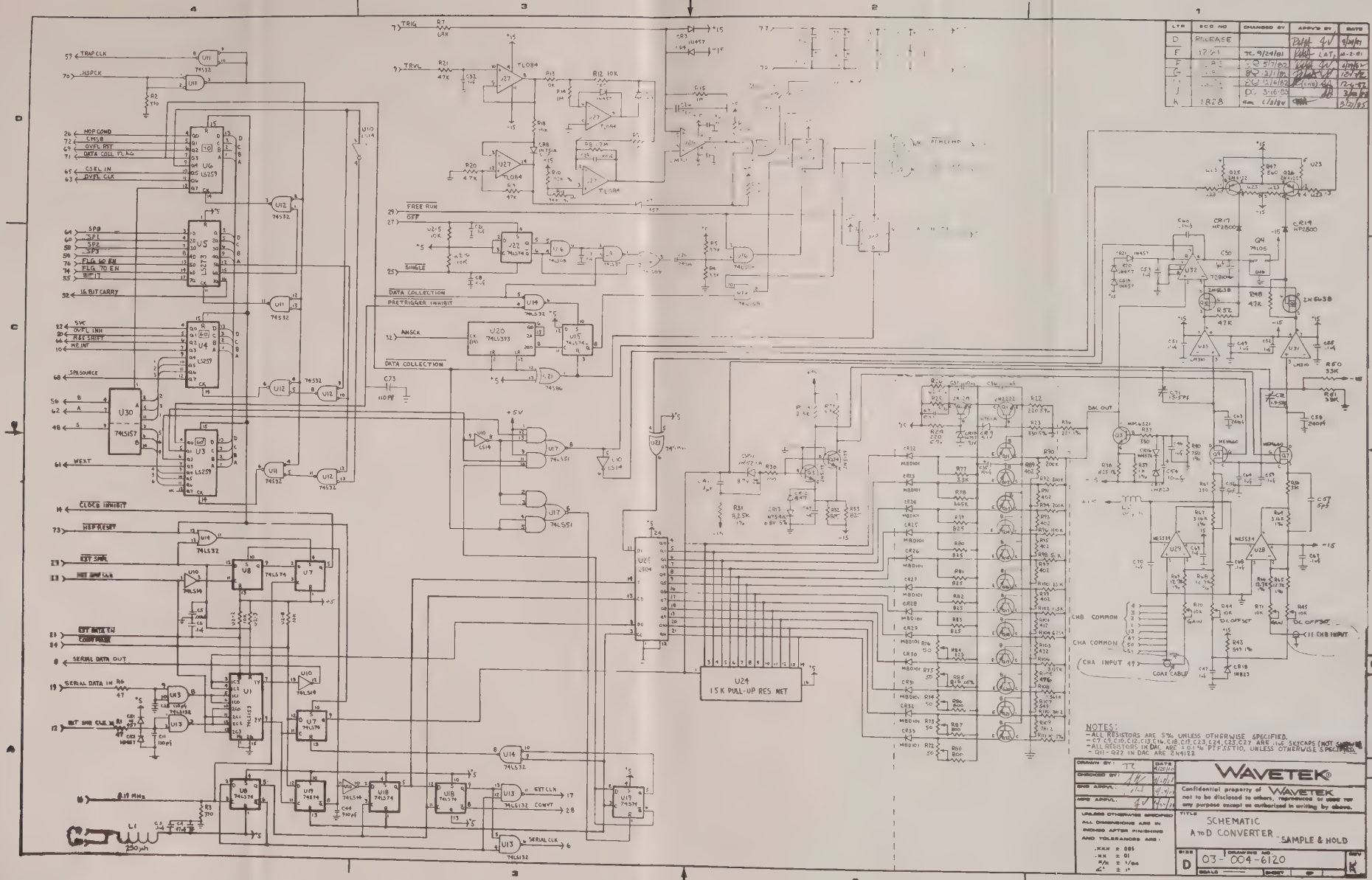
LIST OF MATERIAL 02-004-6120

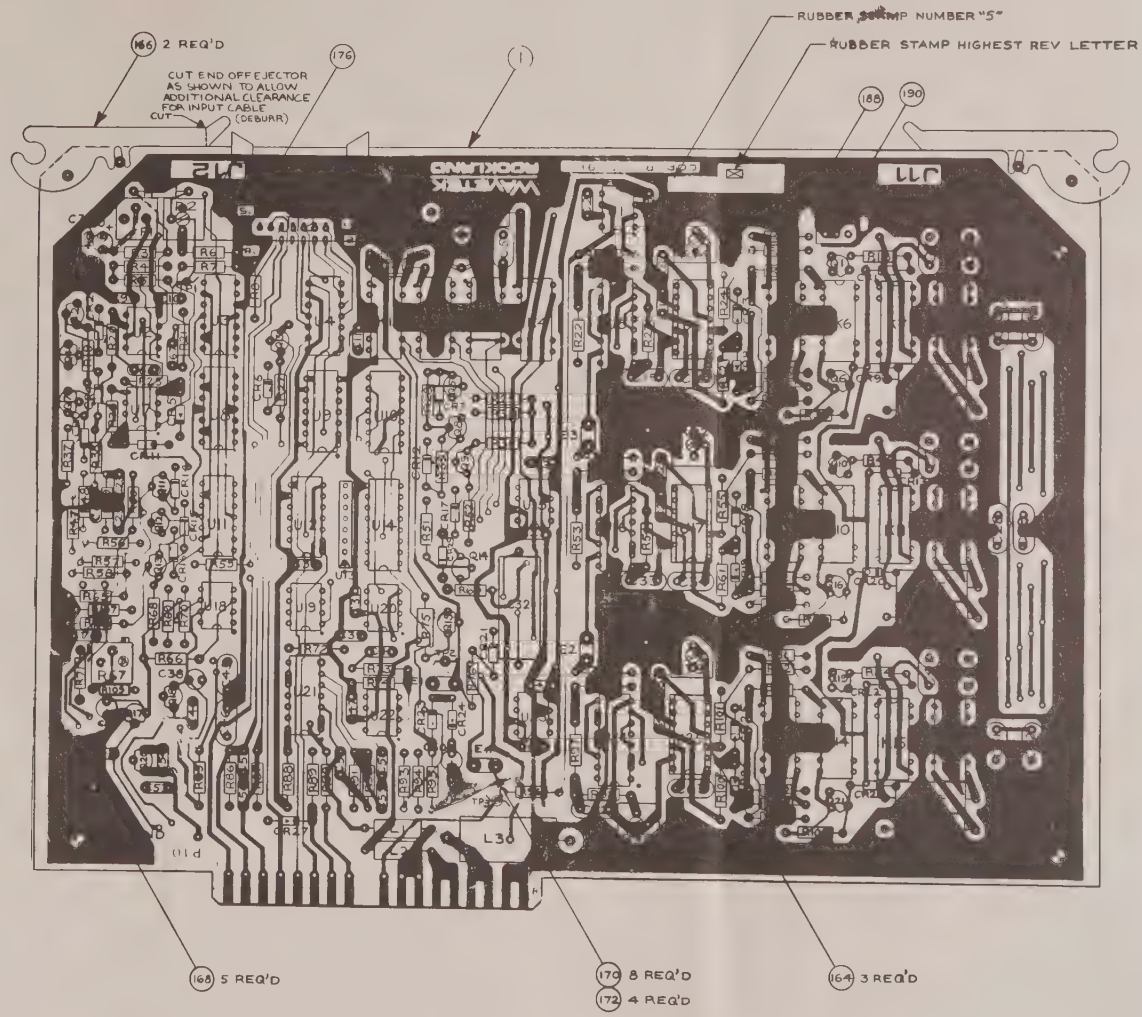
REV SLE SHT 2

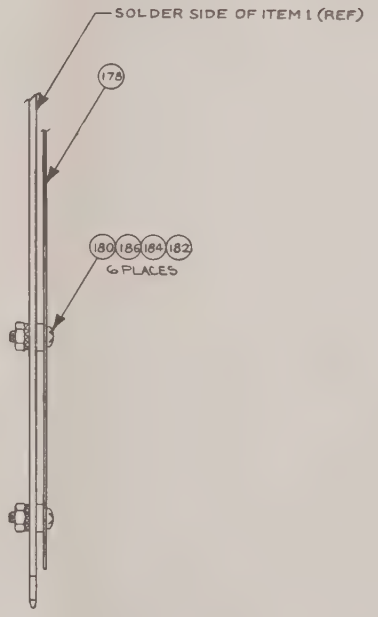
RELEASE AUTHORITY | DATE | ASSY SIZE D | DATE 8-21-79 | SHEET 5 OF 5

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
100				
101	120-0054	1	Q: NV. REG 5V (79L05)	Q4
102	134-2219	1	Q: SIL NPN (2N2219A)	Q2
103	134-2222	1	Q: SIL NPN (2N2222)	Q1
104	135-6521	1	Q: SIL NPN (MPS6521)	Q3
105				
106	134-5179	2	Q: SIL NPN (2N5179)	Q5, Q24
107	138-0660	2	Q: FET N-CHAN (MEM660)	Q7, Q9
108	136-4122	14	Q: SIL PNP (2N4122) Q25Q26	Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q19, Q20, Q21, Q22
109	138-5638	2	Q: FET N-CHAN (2N5638)	Q8, Q10
110	131-9680	1	CR: SL ZR 6.8V 5% 400MW (IN754A)	CR13
111	131-9872	1	CR: SL ZR 8.7V 2% 400MW (IN5238)	CR11
112	132-0457	12	CR: SL LW LK 70PIV 200MW (IN457)	CR1, CR2, CR3, CR4, CR5, CR6, CR7, CR12,
113				CR16, CR19, CR20, CR21.
114	131-9510	2	CR: SL ZR 5.1V 5% 400MW (IN751A)	CR8, CR9
115	131-9910	1	CR: SL ZR 9.1V 5% 400MW (IN757A)	CR10,
116	131-9621	2	CR: SL ZR 6.2V 5% 400MW (IN823)	CR15, CR18
117	133-0101	12	CR: HOT CARRIER, LOW CAP (MBD101)	CR22, CR23, CR24, CR25, CR26, CR27, CR28,
118				CR29, CR30, CR31, CR32, CR33.
119	009-9615	1	CABLE ASSY (8 IN LG)	
120	009-9614	1	CABLE ASSY (9 IN LG)	
121	05-310-0705	1	BRACKET: HOLD DOWN 5830	
122	381-4072	1	MSCR: ST CD PH 4-40 x 3/8 PH	
123	388-1042	1	WASHER: SPLT LK STNLS # 4	
124	376-2104	1	SPREADER: TXSTR LEAD NYL	INSTALL AT Q1
125	388-3042	2	SPACER: FLAT NYLON #4-1/4 D X 3/32 T	
126	378-5181	A/R	SLVNG: PLAS FBRGLS 18 AWG	FOR C4, L1, & C60
127	387-4080	1	NUT: HX ST CD 4-40 x 1/4 AF	
128	378-1961	A/R	WIRE: #30 AWG SOLID KYN BLUE	
129	354-0007	2	CONN: TERM TEST POINT	A TO A WIRING
130	364-0405	1	EJECTOR: 5830 CARD CAGE	
131	354-0027	1	CONN: TERM. TEST POINT	GND TP
132	133-2800	2	CR: HOT CARRIER (HP2800)	CR14, CR17

FORM NO 304

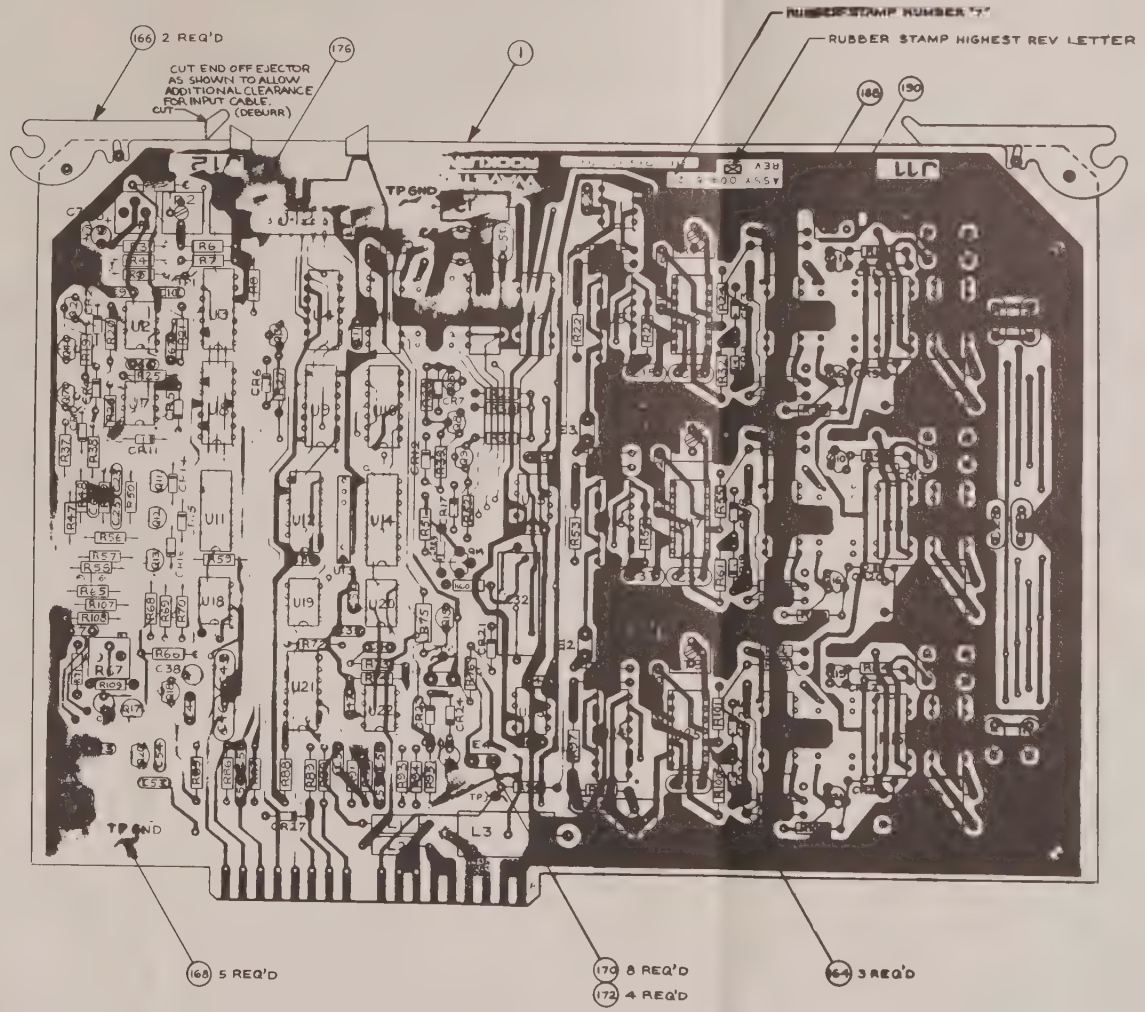

TRAP CLK
HSPCK
HOP COND
CMSB
OVFL RST
DATA COLL FLAG
CSEL IN
OVFL CLK
SP0
SP1
SP2
SP3
FLG 60 EN
FLG 70 EN
16 BIT CARRY
SVC
OVFL INH
FREE SHIFT
MS INT
SPI SOURCE
WEXT
CLOCK INHIBIT
HSP RESET
EXT SMPL
INT SMP CLK
EXT INTLVG CONV PULSE
SERIAL DATA OUT
SERIAL DATA IN
EXT SMP CLK IN
8.19 MHz
TRIG
TRVL
FREE RUN
OFF
SINGLE
DATA COLLECTION
PRETRIGGER INHIBIT
AMSCK
DATA COLLECTION
EXT CLK
CONVT
SERIAL CLK
U24
15 K PULL-UP RES NET
DAC OUT
CHB COMMON
CHA COMMON
CHA INPUT
COAX CABLE
DC OFFSET
CHB INPUT
GAIN
NOTES:
-ALL RESISTORS ARE 5% UNLESS OTHERWISE SPECIFIED.
-C7 C9 C10 C12 C13 C14 C18 C19 C23 C24 C25 C27 ARE .1uF SKYCAPS (NOT SHOWN)
-ALL RESISTORS IN DAC ARE .01% PTF 25TTO, UNLESS OTHERWISE SPECIFIED.
-Q11-Q22 IN DAC ARE 2N4122
WAVETEK
Confidential property of WAVETEK not to be disclosed to others, reproduced or used for any purpose except as authorized in writing by above.
SCHEMATIC
A to D CONVERTER - SAMPLE & HOLD
DRAWING NO 03-004-6120
SIZE D
REV K





SHEETS 2 TO 7 ARE "A" SIZE L/M

DR J. Peters	DATE 1/6/82	WAVETEK	
CHKD		PC ASSY FILTER BOARD	
ENG	2/1/82		
MFG	2/1/82		
ISSUED			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE:			
MAT		SIZE D	MODEL NO 5830
FIN		SCALE 2:1	DRAWING NO 02-004-6125 REV Q
			SHEET 1 OF 7



SHEETS 2 TO 7 ARE "A" SIZE L/M

	WAVETEK	
	PC ASSY FILTER BOARD	
	D 5830	02-004-6127 H

WAVETEK®

TITLE: ASSEMBLY
FILTER BOARD (5830)

LIST OF MATERIAL: 02-004-6125

REV: Q

RELEASE AUTHORITY | DRW BY | PCB | ASSY DTE: D

DATE 9-26-80

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6125	1	PC: FILTER BOARD (5830)	
2				
3	120-1017	5	U: LIN BIFET OP-AMP DIL LF351	U1, U15, U20, U22, U23
4				
5	120-1018	2	U: LIN OP-AMP DIL (NE5534A)	U2, U18
6				
7	120-2324	4	U: QD LIN OP-AMP (LM324N)	U3, U8, U10, U11
8				
9	125-0101	3	U: 8BT SHFT REG. SIPO (74LS164)	U4, U9, U12
10				
11	128-2223	3	U: PULL UP NET 2.2K 1% x 8	U5, U16, U24
12				
13	120-2007	3	U: QD LIN BIFFET OP-AMP (SEL347)	U6, U17, U25
14				
15	138-5566	1	Q: DL MATCH FET (NPD-5566)	U7,
16	138-5564	1	Q: DUAL MATCH FET (NPD-5564)	U19
17	128-2105	1	U: PULL UP NET 1K 2% x7 SIP	U13
18				
19	120-4494	1	U: HEX MOS-LED DRIVER (75494)	U14
20				
21	120-3339	1	U: QUAD ANAL VOLT COMP (LM339)	U21
22				
23				
24	138-5638	18	Q: FET N-CHAN JCT (2N5638)	Q1-Q16, Q19, Q21
25				
26	175-1505	4	RELAY: REED DIP 1A W/DIODE 5V	K1 THRU K4
27				
28	175-1507	12	RELAY: REED DIP 2A W/DIODE 5V	K5 THRU K16
29				
30	150-2100	2	L: FXD 1 MHY +/-10% SHLD	L1, L2
31	150-1251	1	L: FXD 250 μHY HI-CURR	L3
32	120-0122	1	Q: P.V. REG 12V 78L12	Q18
33	120-0123	1	Q: N.V. REG 12V 79L12	Q17

FORM NO 304

WAVETEK®

TITLE: ASSEMBLY
FILTER BOARD (5820)

LIST OF MATERIAL: 02-004-6127

REV: H

RELEASE AUTHORITY | CHK BY | ASBY SIZE: D

DATE: 1/22/82 | SHEET 2 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6125	1	PC: FILTER BOARD (5830)(5820)	
2	03-004-6125	REF	SCHEMATIC, FILTER BD (5830)(5820)	
3	120-1017	5	U: LIN BIFET OP-AMP DIL LF351	U1, U15, U20, U22, U23
4				
5	120-1018	2	U: LIN OP-AMP DIL (NE5534A)	U2, U18
6				
7	120-2324	4	U: QD LIN OP-AMP (LM324N)	U3, U8, U10, U11
8				
9	125-0101	3	U: 8 BT SHFT REG. SIPO (74LS164)	U4, U9, U12
10				
11	128-2223	3	U: PULL UP NET 2.2K 1% x 8	U5, U16, U24
12				
13	120-2007	3	U: QD LIN BIFFET OP-AMP (SEL347)	U6, U17, U25
14				
15	138-5566	1	Q: DL MATCH FET (NPD-5566)	U7,
16	138-5564	1	Q: DL MATCH FET (NPD-5564)	U19
17	128-2105	1	U: PULL UP NET 1K 2% x 7 SIP	U13
18				
19	120-4494	1	U: HEX MOS-LED DRIVER (75494)	U14
20				
21	120-3339	1	U: QUAD ANAL VOLT COMP (LM339)	U21
22				
23				
24	138-5638	18	Q: FET N-CHAN JCT (2N5638)	Q1-Q16, Q19, Q21
25				
26	175-1505	3	RELAY: REED DIP 1A W/DIODE 5V	K1, K3, K4
27				
28	175-1507	9	RELAY: REED DIP 2A W/DIODE 5V	K5, K7, K8, K9, K11, K12, K13, K15, K16
29				
30	150-2100	2	L: FXD 1 MHY +/-10% SHLD	L1, L2
31	150 1251	1	L: FXD 250 MHY HI-CURR	L3
32	120-0122	1	Q: P.V. REG 12V 78L12	Q18
33	120-0123	1	Q: N.V. REG 12V 79L12	Q17

FORM NO 304

WAVETEK®

TITLE: ASSEMBLY FILTER BOARD (5830)

LIST OF MATERIAL: 02-004-6125

REV: Q

RELEASE ASSEMBLY | DRAWN BY | CHK'D | APP'D | ASSY SIZE: D | DATE: 9-26-80 | SHEET 3 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	100-4102	30	C: FX MONO 0.1 µf 50V Z5U	C2, C3, C6, C9, C10, C11, C12, C19, C20
35				C23-C25, C30, C31, C39, C43, C44,
36				C47-C50, C53-C59, C61, C27
37				
38	101-1910	1	C: FX MICA DP 910 pf 1% 500V	C5
39	101-1911	6	C: FX MICA DP 910PF +0-.5%	C8, C13, C22, C28, C42, C51
40	101-0220	3	C: FX MICA DP 22pf 10% 500V	C15, C33, C62
41				
42	108-0600	1	C: VAR CER 15-60pf	C4
43	101-0100	1	C: FX MICA DP 10PF 10% 500V	C70
44	101-0681	6	C: FX MICA DP 68 Pf 1% 500V	C7, C14, C21, C29, C41, C52
45	101-0330	1	C: FX MICA DP 33PF 10% 500V	C68
46	104-3106	7	C: FX PLYSTY .01uf -.5+0% 63V	C1, C17, C18, C35, C36, C64, C65
47				
48	101-0120	3	C: FX MICA DP 12pf 10% 500V	C16, C34, C63
49				
50	105-5101	1	C: FX PLSTR 1.0 µf 5% 100V	C32
51				
52	109-6100	5	C: FX TANT 10uf 20% 20V	C37, C38, C60, C71, C72
53	101-1620	1	C: FX MICA DP 620Pf 10% 500V	C66
54	101-1200	1	C: FX MICA DP 200pf 10% 500V	C46
55	101-1150	1	C: FX MICA DP 150 Pf 10% 500V	C67
56	101-0150	1	C: FX MICA DP 15pf 10% 500V	C45
57	101-0050	1	C: FX MICA DP 5Pf 10% 500V	C40
58				
59	132-0157	26	CR: SL LW LK 70PIV 200MW IN457	CR1, CR2, CR4-CR17, CR19-CR24
60				CR27, CR28, CR26, CR29
61	131-9510	3	CR: SL ZR 5.1V 5% 400MW IN751A	CR3, CR18, CR25
62				
63				
64	136-4249	1	Q: SIL PNP (2N4249)	Q20
65				
66				

FORM NO 204

WAVETEK®

TITLE: ASSEMBLY FILTER BOARD (5820)

LIST OF MATERIAL: 02-004-6127

REV: H

RELEASE AUTHORITY | CHK BY | ENGR | MFR | ASSY SIZE: D | DATE: 1/22/82 | SHEET 3 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	100-4102	30	C: FX MONO 0.1 µf 50V Z5U	C2, C3, C6, C9, C10, C11, C12, C19, C20
35				C23-C25, C30, C31, C39, C43, C44,
36				C47-C50, C53-C59, C61, C27
37				
38	101-1910	1	C: FX MICA DP 910 pf 1% 500V	C5
39	101-1911	6	C: FX MICA DP 910PF +0-.5%	C8, C13, C22, C28, C42, C51
40	101-0220	3	C: FX MICA DP 22pf 10% 500V	C15, C33, C62
41				
42	108-0600	1	C: VAR CER 15-60pf	C4
43	101-0100	1	C: FX MICA DP 10PF 10% 500V	C70
44	101-0681	6	C: FX MICA DP 68 Pf 1% 500V	C7, C14, C21, C29, C41, C52
45	101-0330	1	C: FX MICA DP 33PF 10% 500V	C68
46	104-3106	7	C: FX PLYSTY .01uf -.5+0% 63V	C1, C17, C18, C35, C36, C64, C65
47				
48	101-0120	3	C: FX MICA DP 12pf 10% 500V	C16, C34, C63
49				
50	105-5101	1	C: FX PLSTR 1.0 µs 5% 100V	C32
51				
52	109-6100	5	C: FX TANT 10uf 20% 20V	C37, C38, C60, C71, C72
53	101-1620	1	C: FX MICA DP 620Pf 10% 500V	C66
54	101-1200	1	C: FX MICA DP 200pf 10% 500V	C46
55	101-1100	1	C: FX MICA DP 100 Pf 10% 500V	C67
56	101-0150	1	C: FX MICA DP 15pf 10% 500V	C45
57	101-0050	1	C: FX MICA DP 5PF 10% 500V	C40
58				
59	132-0457	26	CR: SL LW LK 70PIV 200MW IN457	CR1, CR2, CR4-CR17, CR19-CR24
60				CR27, CR28, CR26, CR29
61	131-9510	3	CR: SL ZR 5.1V 5% 400MW IN751A	CR3, CR18, CR25
62				
63				
64	136-4249	1	Q: SIL PNP (2N4249)	Q20
65				
66				

FORM NO 304

WAVETEK®

TITLE: ASSEMBLY FILTER BOARD (5830)

LIST OF MATERIAL: 02-004-6125 REV Q

RELEASE AUTHORITY | CHK BY | ASSY SIZE D | DATE 9-26-80 | SHEET 4 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
67	118-2202	2	R:VAR CMT 2.0K 3/8 SQ FM	R2, R42
68				
69	118-4104	2	R:VAR CMT 100K 3/8 SQ FMHY 18T	R1, R67
70				
71	110-2001	3	R:FX MFLM 200Ω, 1%, 1/10W T2	R6, R7, R21
72				
73	116-2221	1	R:FX CFLM 2.2K 5% 1/4W	R106
74				
75	116-4101	1	R:FX CFLM 100K OHM 5% 1/4W	R3
76				
77				
78	111-1820	1	R:FX MFLM 1.82K 1% 1/10W T2	R5
79	111-2211	1	R:FX MFLM 2.21K 1% 1/10W T2	R20
80				
81	116-3221	3	R:FX CFLM 22K OHM 5% 1/4W	R25, R26, R109
82				
83	111-8450	1	R:FX MFLM 8.45K 1% 1/8W T0	R47
84				
85	111-5361	1	R:FX MFLM 5.36K 1% 1/10W T2	R48
86				
87	116-0101	2	R:FX CFLM 10 OHM 5% 1/4W	R49, R50
88				
89	111-6811	2	R:FX MFLM 6.81K 1% 1/10W T2	R66, R71
90	118-2102	2	R:VAR CMT 1.0K 3/8 SQ FM	R14, R99
91				
92				
93	111-8060	1	R:FX MFLM 8.06K 1%, 1/10W T2	R57
94				
95	111-3571	1	R:FX MFLM 3.57K 1% 1/10W T2	R56
96	111-8981	1	R:FX MFLM 8.98K 1% 1/10W T2	R58
97	111-3401	1	R:FX MFLM 3.40K 1% 1/10W T2	R98
98	116-2101	2	R:FX CFLM 1.0K 5% 1/4W	R8, R90
99	113-8060	1	R:FX MFLM 806K OHM 1% 1/8W T0	R51

FORM NO 304

WAVETEK®

TITLE: ASSEMBLY FILTER BOARD (5820)

LIST OF MATERIAL: 02-004-6127

REV: H

RELEASE AUTHORITY | CHK BY | ENG | ASSY SIZE: D | DATE: 1/22/82 | SHEET 4 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
67	118-2202	2	R:VAR CMT 2.0K 3/8 SQ FM	R2, R42
68				
69	118-4104	2	R:VAR CMT 100K 3/8 SQ FM HT 18T	R1, R67
70				
71	110-2001	3	R: FX MFLM 200Ω, 1%, 1/10W T2	R6, R7, R21
72				
73	116-2221	1	R: FX CFLM 2.2K 5% 1/4 W	R106
74				
75	116-4101	1	R: FX CFLM 100K OHM 5% 1/4W	R3
76				
77				
78	111-1820	1	R: FX MFLM 1.82K 1% 1/10W T2	R5
79	111-2211	1	R: FX MFLM 2.21K 1% 1/10W T2	R20
80				
81	116-3221	3	R: FX CFLM 22K OHM 5% 1/4W	R25, R26 R109
82				
83	111-8450	1	R: FX MFLM 8.45K 1% 1/8W TO	R47
84				
85	111-5361	1	R: FX MFLM 5.36K 1% 1/10W T2	R48
86				
87	116-0101	2	R: FX CFLM 10 OHM 5% 1/4 W	R49, R50
88				
89	111-6811	2	R: FX MFLM 6.81K 1% 1/10W T2	R66, R71
90	118-2102	2	R: VAR CMT 1.0K 3/8 SQ FM	R14, R99
91				
92				
93	111-8060	1	R: FX MFLM 8.06K 1%, 1/10W T2	R57
94				
95	111-3571	1	R: FX MFLM 3.57K 1% 1/10W T2	R56
96	111-8981	1	R: FX MFLM 8.98K 1% 1/10W T2	R58
97	111-3401	1	R: FX MFLM 3.40K 1% 1/10W T2	R98
98	116-2101	2	R: FX CFLM 1.0K 5% 1/4 W	R8, R90
99	113-8060	1	R: FX MFLM 806K OHM 1% 1/8W TO	R51

FORM NO 304

WAVETEK®

TITLE: ASSEMBLY FILTER BOARD (5830)

LIST OF MATERIAL: 02-004-6125 REV Q

RELEASE AUTHORITY | DRAWN BY | ASSY SIZE: D | DATE 9-26-80 | SHEET 5 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
100	110-6041	1	R:FX MFLM 604 OHM 1% 1/10W T2	R65
101				
102	116-2471	1	R:FX CFLM 4.7K OHM 5% 1/4W	R72
103				
104	116-5101	1	R:FX CFLM 1.0M OHM 5% 1/4W	R85
105	113-2490	1	R:FX MFLM 249K 1% 1/8W TO	R60
106	116-3101	8	R:FX CFLM 10K OHM 5% 1/4W	R32,R61,R86-R89,R95,R100
107	112-1430	2	R:FX MFLM 14.3K 1% 1/8W TO	R91, R93
108	112-1001	2	R:FX MFLM 10.0K 1% 1/10W T2	R73,R74
109	110-4871	2	R:FX MFLM 487Ω, 1%, 1/10W T2	R92,R94
110	112-9358	1	R:FX MFLM 93.51K, .5%, 1/8W TO	R75
111				
112	111-6041	2	R:FX MFLM 6.04K 1% 1/10W T2	R107, R4
113				
114	112-1820	1	R:FX MFLM 18.2K 1% 1/8W TO	R31
115				
116	111-2871	1	R:FX MFLM 2.87K 1% 1/10W T2	R30
117				
118	111-3741	1	R:FX MFLM 3.74K 1% 1/10W T2	R29
119				
120	111-4678	1	R:FX MFLM 4.675K, .5%, 1/8W TO	R11
121				
122	111-9358	1	R:FX MFLM 9.351K, .5% 1/8W TO	R10
123				
124	116-0471	1	R:FX CFLM 47 OHM 5% 1/4W	R96
125				
126	112-1360	1	R:FX MFLM 13.6K 1% 1/8W TO	R97
127				
128	111-5561	5	R:FX MFLM 5.56K 0.5% 1/10W T2	R13,R40,R41,R77,R78
129				
130	112-6041	1	R:FX MFLM 60.4K 1% 1/10W T2	R101
131				
132	118-3101	1	R:VAR CMT 10K 3/8 SQ. FM	R79

FORM NO 204

WAVETEK®

TITLE: ASSEMBLY FILTER BOARD (5820)

LIST OF MATERIAL: 02-004-6127

REV: H

RELEASE AUTHORITY | CHK BY | MFG | ASSY SIZE: D | DATE 1/22/82 | SHEET 5 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
100	110-6041	1	R:FX MFLM 604 OHM 1% 1/10W T2	R65
101				
102	116-2471	1	R:FX CFLM 4.7K OHM 5% 1/4W	R72
103				
104	116-5101	1	R:FX CFLM 1.0M OHM 5% 1/4W	R85
105	113-2490	1	R:FX MFLM 249K,1%,1/8W TO	R60
106	116-3101	8	R:FX CFLM 10K OHM 5% 1/4W	R32,R61,R86-R89,R95,R100
107	112-1430	2	R:FX MFLM 14.3K 1% 1/8W TO	R91, R93
108	112-1001	2	R:FX MFLM 10.0K 1% 1/10W T2	R73,R74
109	110-4871	2	R:FX MFLM 4[illegible]Ω, 1%, 1/10W T2	R92,R94
110	112-9358	1	R:FX MFLM 93.51K,.5%,1/8W TO	R75
111				
112	111-6041	1	R:FX MFLM 6.04K 1% 1/10W T2	R107,R4
113				
114	112-1820	1	R:FX MFLM 18.2K 1% 1/8W TO	R31
115				
116	111-2871	1	R:FX MFLM 2.87K 1% 1/10W T2	R30
117				
118	111-3741	1	R:FX MFLM 3.74K 1% 1/10W T2	R29
119				
120				
121				
122	111-9358	1	R:FX MFLM 9.351K,.5% 1/8W TO	R10
123				
124	116-0471	1	R:FX CFLM 47 OHM 5% 1/4W	R96
125				
126	112-1360	1	R:FX MFLM 13.6K 1% 1/8W TO	R97
127				
128	111-5561	5	R:FX MFLM 5.56K 0.5% 1/10W T2	R13,R40,R41,R77,R78
129				
130	112-6041	1	R:FX MFLM 60.4K 1% 1/10W T2	R101
131				
132	118-3101	1	R:VAR CMT 10K 3/8 SQ. FM	R79

FORM NO 304

WAVETEK®

ASSEMBLY FILTER BOARD (5830)

SIZE D

LIST OF MATERIAL 02-004-6125 REV Q

DATE 9-26-80 SHEET 6 OF 7

	ITEM	QTY	DESCRIPTION	REMARKS
133	116-3471	17	R:FX CFLM 47K 5% 1/4W	R18,R19,R27,R28,R36-R39,R46
134				R52,R68-R70,R76,R80,R84,R105
135	112-3139	2	R:FX MFLM 31.33K .1% 1/10W T2	R82,R104
136				
137	111-3139	2	R:FX MFLM 3.133K .1% 1/10W T2	R81,R103
138				
139	111-1569	2	R:FX MFLM 1.566K .1% 1/10W T2	R83,R102
140	110-4021	1	R:FX MFM 402Ω, 1% 1/10W T2	R59
141	112-3051	1	R:FX MFLM 30.5K 1% 1/10W T2	R12
142	112-2611	1	R:FX MFLM 26.1K .5% 1/10W T2	R53
143	111-4421	2	R:FX MFLM 4.42K 1% 1/10W T2	R24,R54
144	111-2001	2	R:FX MFLM 2K 1% 1/10W T2	R23,R108
145	112-1471	1	R:FX MFLM 14.7K 1% 1/10W T2	R55
146				
147	112-3629	2	R:FX MFLM 36.24K .1% 1/10W TO	R44,R64
148				
149	111-3629	2	R:FX MFLM 3.624K .1% 1/10W TO	R43,R63
150				
151	111-1819	2	R:FX MFLM 1.812K .1% 1/10W TO	R45,R62
152				
153	113-1690	1	R:FX MFLM 169K 1% 1/8W TO	R22
154				
155				
156				
157	112-5449	2	R:FX MFLM 54.46K .1% 1/10W TO	R16,R35
158				
159	111-5449	2	R:FX MFLM 5.446K .1% 1/10W TO	R15,R34
160				
161	111-2729	2	R:FX MFLM 2.723K .1% 1/10W TO	R17,R33
162				
163				
164	353-1403	3	SOCKET: IC 14 PIN DIP ST	FOR U6,U17,U25
165				

WAVETEK®

TITLE: ASSEMBLY
FILTER BOARD (5820)

LIST OF MATERIAL: 02-004-6127

REV: H

RELEASE AUTHORITY | CHK BY | ENGR | DES | ASSY SIZE: D | DATE: 1/22/82 | SHEET 6 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
133	116-3471	17	R:FX CFLM 47K 5% 1/4W	R18,R19,R27,R28,R36-R39,R46
134				R52,R68-R70,R76,R80,R84,R105
135	112-3139	2	R:FX MFLM 31.33K .1% 1/10W T2	R82,R104
136				
137	111-3139	2	R:FX MFLM 3.133K .1% 1/10W T2	R81,R103
138				
139				
140	110-4021	1	R:FX MFM 402Ω, 1% 1/10W T2	R59
141	112-3051	1	R:FX MFLM 30.5K 1% 1/10W T2	R12
142	112-2611	1	R:FX MFLM 26.1K .5% 1/10W T2	R53
143	111-4421	2	R:FX MFLM 4.42K 1% 1/10W T2	R24,R54
144	111-2001	2	R:FX MFLM 2K 1% 1/10W T2	R23,R108
145	112-1471	1	R:FX MFLM 14.7K 1% 1/10W T2	R55
146				
147	112-3629	2	R:FX MFLM 36.24K .1% 1/10W TO	R44,R64
148				
149	111-3629	2	R:FX MFLM 3.624K .1% 1/10W TO	R43,R63
150				
151				
152				
153	113-1690	1	R:FX MFLM 169K 1% 1/8W TO	R22
154				
155				
156				
157	112-5449	2	R:FX MFLM 54.46K .1% 1/10W TO	R16,R35
158				
159	111-5449	2	R:FX MFLM 5.446K .1% 1/10W TO	R15,R34
160				
161				
162				
163				
164	353-1403	3	SOCKET: IC 14 PIN DIP ST	FOR U6,U17,U25
165				

FORM NO 304

WAVETEK®

ASSEMBLY
FILTER BOARD (5830)

D

LIST OF MATERIAL: 02-004-6125 | REV: R

DATE: 9-26-80 | SHEET 7 OF 7

				REMARKS	
166	364-0404	2	EJECTOR: PC	BURTCHER #87-2	
167					
168	354-0027	5	CONN: TERM TEST POINT	TP1, TPGND (2), TP2, TP3	
169					
170	353-0104	8	SOCKET: JUMPER	FOR E1, E2, E3, E4	
171					
172	352-0202	4	PLUG: SHORTING	E1, E2, E3, E4	
173					
174					
175					
176	352-1605	1	CONN: HDR 16 P DIL RT ANG ST	J12	3M # 3408-1202
177					
178	320.6128	1	SHIELD BOARD		
179					
180	380-4062	6	M SCR: ST CD SL 4-40 X 3/8 PH		
181					
182	388-1041	6	WASHER: EXT LK STL CAD #4		
183					
184	387-4080	6	NUT: HX ST CAD 4-40 x 1/4 AF		
185					
186	349-2010	6	SPACER: SWITCH NYLON 1/16		
187					
188	354-0305	1	CONN: RIGHT ∠ 3 POSSITION	J11	AMP # 3-102203-4
189					
190	377-4002	1	TIE: CABLE NY NAT (CLAMP)		

WAVETEK

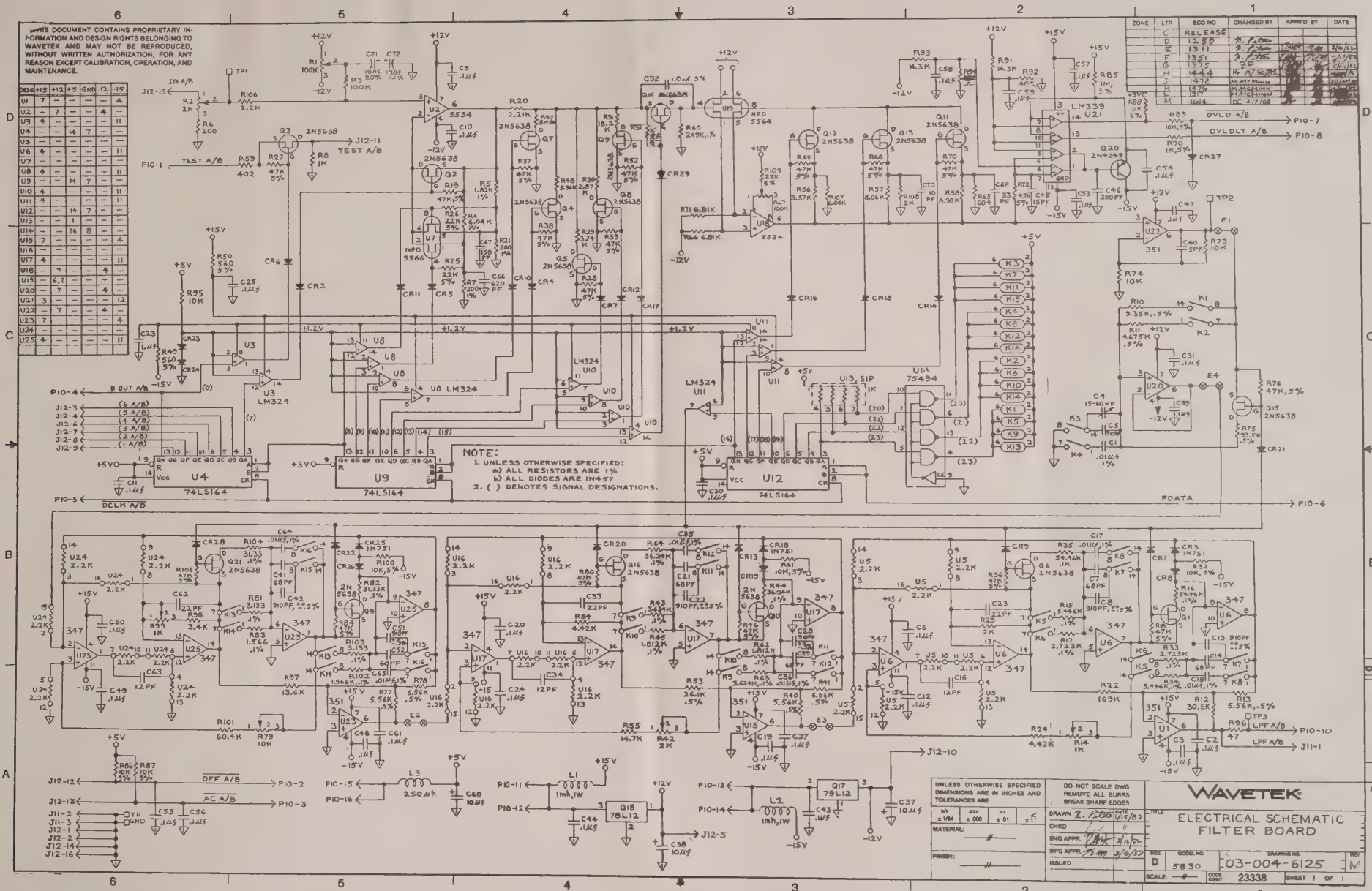
TITLE: ASSEMBLY
FILTER BOARD (5820)

LIST OF MATERIAL: 02-004-6127 REV H

DRAWN BY | CHK'D BY | ENG APPR | ASSY SIZE D | DATE 1/22/82 | SHEET 7 OF 7

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
166	364-0404	2	EJECTOR: PC	BRITCHER #87-2
167				
168	354-0027		CONN: TERM TEST POINT	TP1, TPGND(2), TP2, TP3
169				
170	353-0104	8	SOCKET: JUMPER	FOR E1, E2, E3, E4
171				
172	352-0202	4	PLUG: SHORTING	E1, E2, E3, E4
173				
174				
175				
176	352-1605	1	CONN: HDR 16 P DIL RT ANG ST	J12 3M # 3408-1202
177				
178	320-6128	1	SHIELD BOARD	
179				
180	380-4062	6	M SCR: ST CD SL 4-40 x 3/8 FH	
181				
182	388-1041	6	WASHER: EXT LK STL CAD #4	
183				
184	387-4080	6	NUT: HX ST CAD 4-40 x 1/4 AF	
185				
186	349-2010	6	SPACER: SWITCH NYLON 1/16	
187				
188	354-0305	1	CONN RIGHT ∠ 3 POSSITION	J11 AMP # 3-102203-4
189				
190	377-4002	1	TIE: CABLE NY NAT (CLAMP)	

FORM NO 304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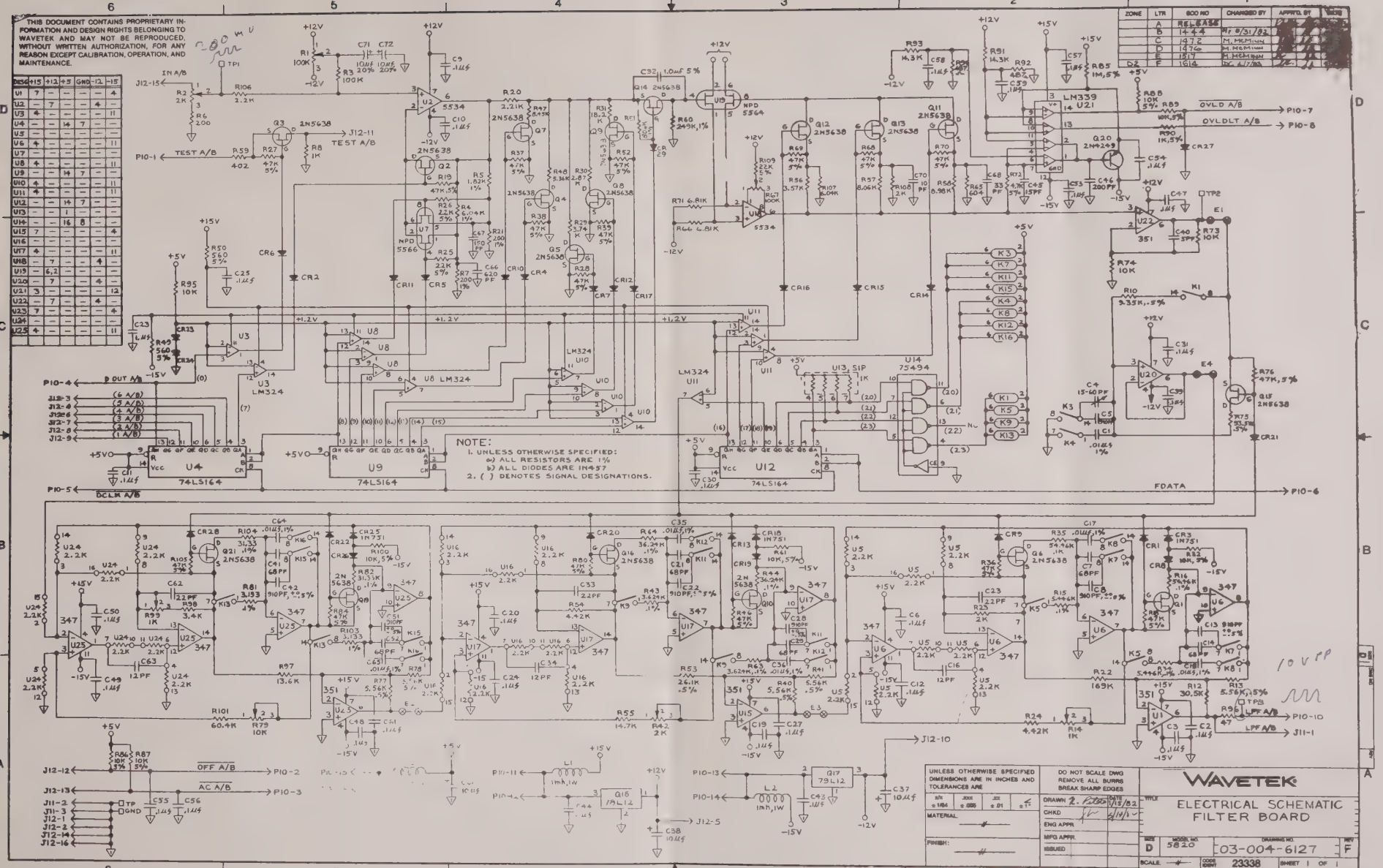
NOTE:
1. UNLESS OTHERWISE SPECIFIED:
a) ALL RESISTORS ARE 1%
b) ALL DIODES ARE IN457
2. ( ) DENOTES SIGNAL DESIGNATIONS.
WAVETEK
ELECTRICAL SCHEMATIC
FILTER BOARD
03-004-6125
5830
23338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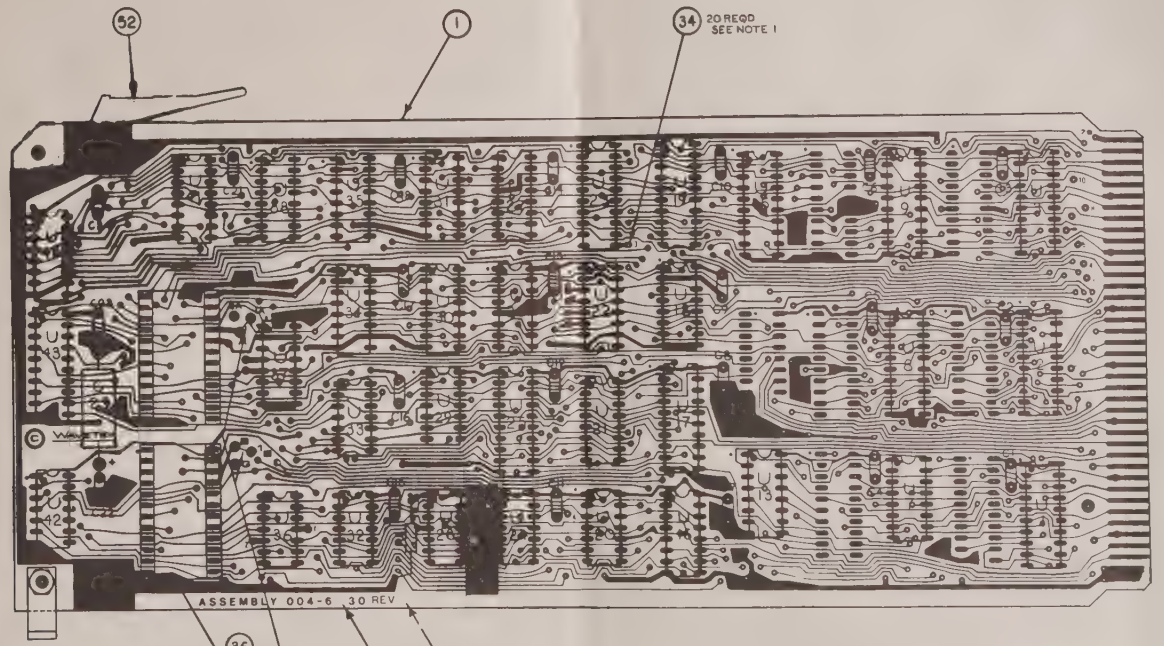
ZONE | LTR | ECO NO | CHANGED BY | APPRVD. BY
A RELEASE
B 1444 MF 8/31/82
C 1472 M. MCMINN
D 1476 M. MCMINN
E 1517 M. MCMINN
F 1616 DC 4/7/83
NOTE:
1. UNLESS OTHERWISE SPECIFIED:
a) ALL RESISTORS ARE 1%
b) ALL DIODES ARE IN457
2. ( ) DENOTES SIGNAL DESIGNATIONS.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE
DO NOT SCALE DWG REMOVE ALL BURRS BREAK SHARP EDGES
DRAWN
CHKD
ENG APPR
MFG APPR.
ISSUED
MATERIAL
FINISH
WAVETEK
TITLE
ELECTRICAL SCHEMATIC FILTER BOARD
MODEL NO. 5820
DRAWING NO. 03-004-6127
REV F
SCALE
CODE IDENT 23338
SHEET 1 OF 1

LTR	ECO NO	CHANGED BY	APPVD BY	DATE
A	REL			
B	1242			
C	1313	TC 2-9-82		
D	1402	M. McMinn		
E	1450	MD 9/19/82		
F	1636	JF		
G	1696	TM		



NOTE:

1. CONNECT WIRE WRAP PINS - PIN 1 TO PIN 1, PIN 2 TO PIN 2, ETC. THRU PIN 10 TO PIN 10

SHEETS 2 & 3 ARE "A" SIZE L/M

DRAWN BY DO	DATE 8-10-81	WAVETEK
CHECKED BY		Confidential property of WAVETEK not to be disclosed to others reproduced or used for any purpose except as authorized in writing by above
ENG APPVL		
MFG APPVL		

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE
XXX ± .005
XX ± .01
F/X ± 1/64
∠° ± 1°

TITLE: P.C. ASSY 5830 SEQUENCER

SIZE D | DRAWING NO 02 004-6130 | REV G

SCALE 2/1 | SHEET OF 3

WAVETEK®

TITLE: PC ASSY HSP-1 SEQUENCER 5830

LIST OF MATERIAL: 02 004-6130

REV: G

RELEASE AUTHORITY	CHK BY	ENG	MFG	ASSY SIZE	DATE	SHEET
				D	1/11/79	2 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6130	1	PC BD HSP-1 SEQUENCER 5830	
2				
3				
4	125.0139	9	U: OCT D-FLIP W/CLR 74LS273	U1,U2 U3,U8,U9,U15,U17, U23,U25
5				
6	125.0152	5	U: QUAD 2 IN MUX WITH STORAGE 74LS399	U7,U13,U26,U27,U38
7				
8	124.0115	1	U: 3 TO 8 LINE DECOD 74S138	U16
9	125.0120	6	U: 4 BT 3-ST D-REG 74LS173	U18,U22,U34,U35,U44,U37
10	125.0140	2	U: OCT D-FLIP 3-ST 74LS374	U19, U43
11	124.7474	1	U: DL D TYPE FLIP FLOP(SHTBY) 74S74	U20
12	125.0113	1	U: DUAL 4 TO 1 MPLXR 74LS153	U21
13	125.7474	1	U: DUAL TYPE D FLIP FLOP 74LS74	U24
14	124.7432	1	U: QUAD 2 IN OR GATE 74S32	U28
15	125.7408	2	U: QUAD 2 IN AND GATE 74LS08	U29, U33
16	125.7432	1	U: QUAD 2 IN OR GATE 74LS32	U42
17	125.0130	3	U: 4 BT FULL ADDER 74LS283	U30,U31,U41
18				
19	125.7400	1	U: QUAD 2 IN NAND GATE 74L900	U32
20	125.7404	1	U: HEX INVERTER 74LS04	U36
21				
22				"
23				
24	109-6470	1	C: FX ELECT 47UF, 40-63 VOLTS	C25
25	100-4102	22	C: FXD MONO, .1UF, 50 WV	SKYCAP C1-C18, C21-C24
26	101-1100	1	C: FX MICA DP 100 pF 5% 500 V.	C26
27	116-1221	1	R: FXD COMP 220Ω 1/4W 5%	R1
28				
29	378.1961	A/R	WIRE: #30 AWG SLD KYN BLUE	
30				
31	378-0601	A/R	WIRE: #22 AWG BUSS TINNED	JUMPER A & JUMPER B
32				
33				

FORM NO 304

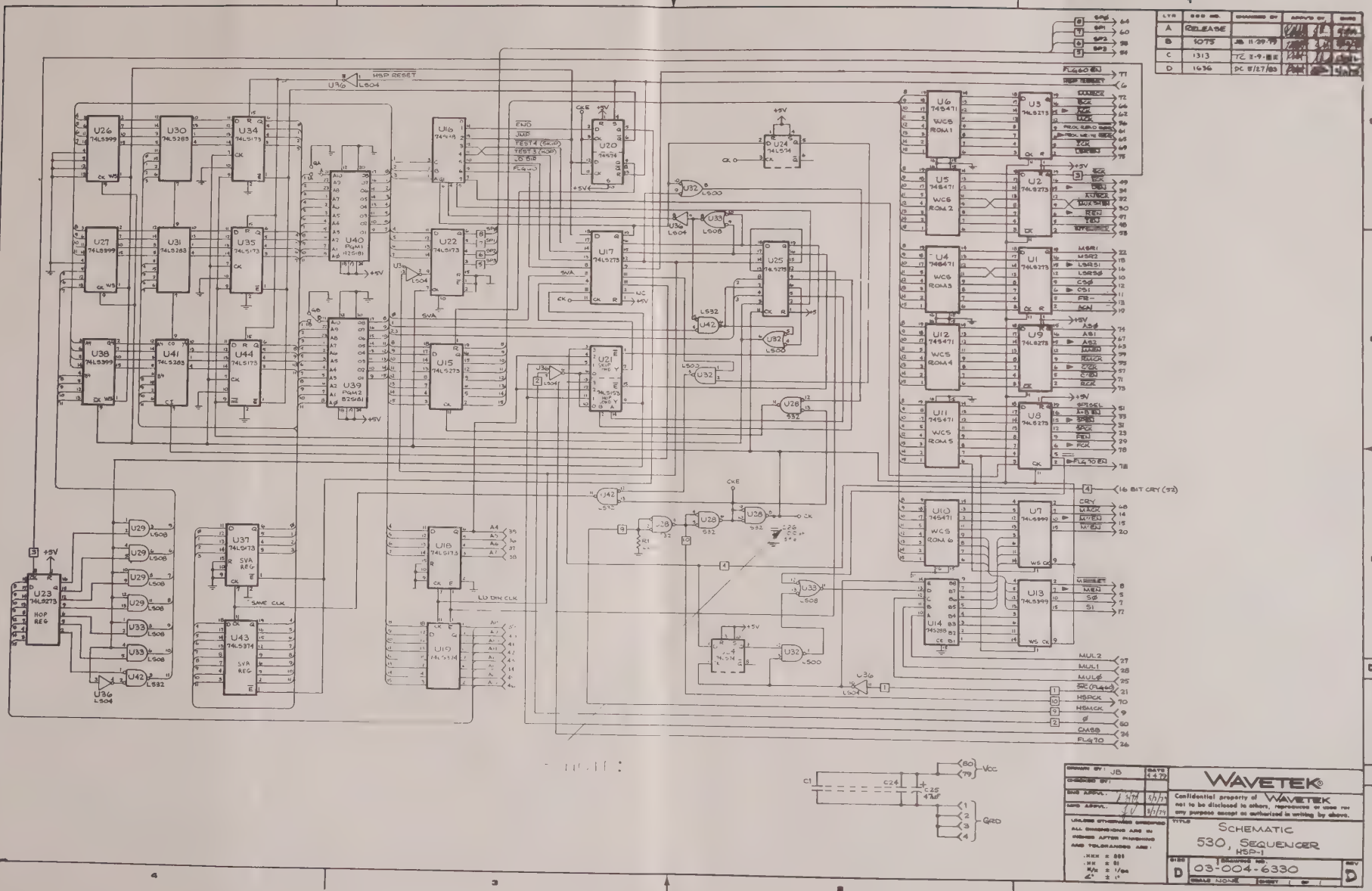
WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	PC ASSY HSP-1 SEQUENCER 5830	02-004-6130	SEE SHT. 2

RELEASE AUTHORITY	CHK BY	DATE	ENG	DATE	MFG	DATE	ASSY SIZE	REL. DATE	SHEET 3 OF 3
							D		

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	34	354-0007	20	CONN: TERM. PIN, WW .025 (2 END)	WW POSTS 1 THRU 10 (PAIRS)
	35				
	36	353-2402	2	SOCKET: IC 24 PIN DIP ST	INSTALL AT U39, U40
	37				
	38				
	39				
	40				
	41				
	42	05-310-0705	1	BRACKET: HOLD DOWN 5830	
	43				
	44				
	46	381-4062	1	M SCR: ST CD PH 4-40 x 3/8 PH	
	48	388-1042	1	WASHER: SPLT LK STNLS #4	
	50	387-4080	1	NUT: HX ST CD 4-40 X 1/4 AF	
	52	364-0405	1	EJECTOR: PC 5830 CARD CAGE	

R.S. KNAPP


WAVETEK
SCHEMATIC
530, SEQUENCER
HSP-1
03-004-6330
D
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HSP RESET
CKE
SVA
SVA REG
SAME CLK
LD DIN CLK
WCS ROM 1
WCS ROM 2
WCS ROM 3
WCS ROM 4
WCS ROM 5
WCS ROM 6
HOP REG
16 BIT CRY (12)
MUL2
MUL1
MUL0
HSPCK
HSMCK
Ø
CMSB
FLG70
Vcc
GND

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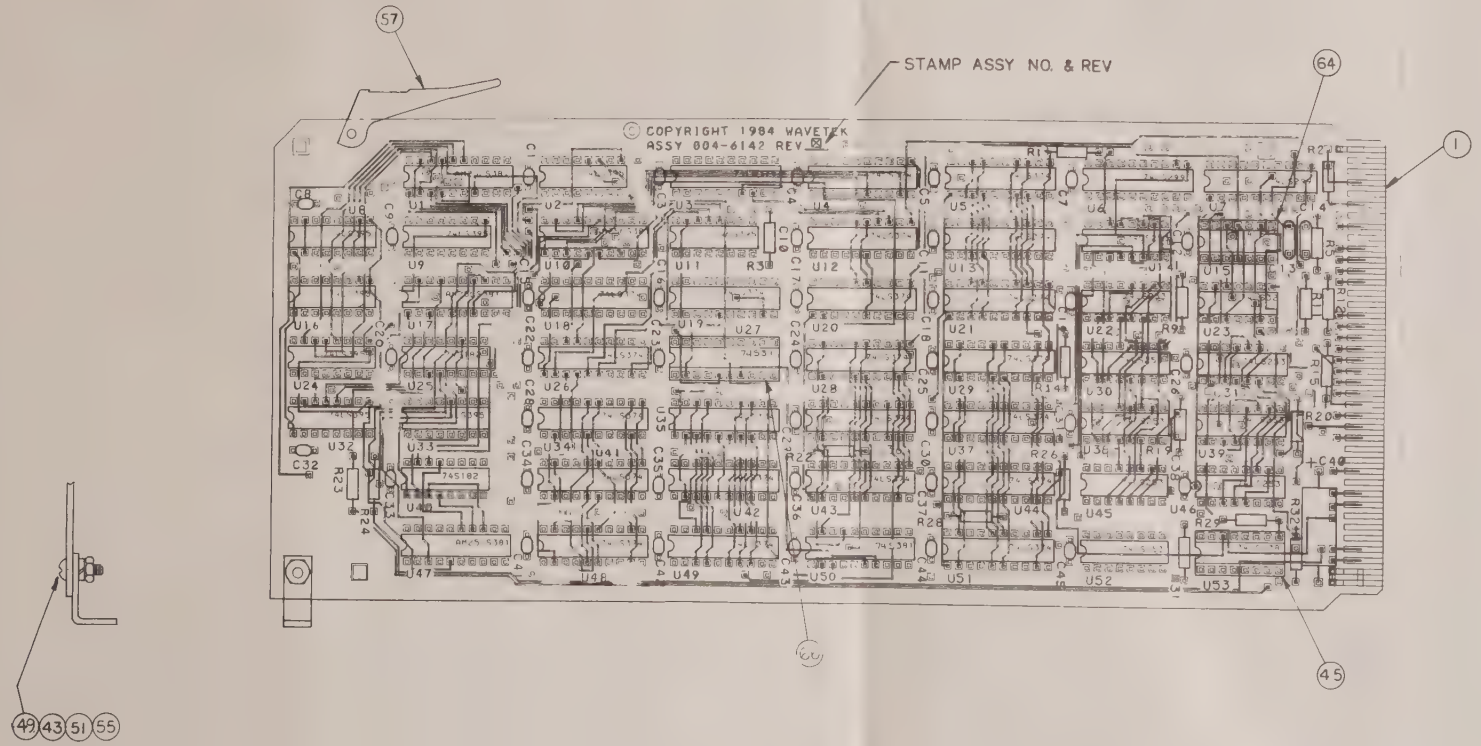
ZONE	LTR	ECO NO	CHANGED BY	APPROVED BY	DATE
	A	1876			
	B	1991			



SHEETS 2 & 3 ARE "A" SIZE L/M

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE

x/x ± 1/64 | xxx ± .005 | xx ± .01 | ∠ ± 1°

MATERIAL

FINISH

DO NOT SCALE DWG
REMOVE ALL BURRS
BREAK SHARP EDGES

	DRAWN	DATE
	CHKD	
	ENG APPR	
	MFG APPR	
	ISSUED	

WAVETEK

TITLE: P.C. ASSEMBLY 24 BIT PROCESSOR

SIZE D | MODEL NO. | DRAWING NO. 02-004-6142 | REV B

SCALE 2/1 | CODE IDENT 80821 | SHEET 1 OF 3

WAVETEK®

TITLE: ASSEMBLY 24 BIT PROCESSOR

LIST OF MATERIAL: 02-004-6142

REV: B

RELEASE AUTHORITY | CHK BY | MFG | ASSY SIZE: D | DATE: 9·10·79 | SHEET 2 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6142	1	PC: HSP-2, 24 BIT PROCESSOR,	
2				
3				
4				
5	126-0142	4	U: ALU/FUNCT GEN (AM25LS381)	U1, U10, U17, U47
6	124-0142	2	U: ALU/FUNCT GEN (74S381)	U27, U50
7	125-7432	1	U: QUAD 2 IN OR GATE (74LS32)	U23
8				
9	125-7414	1	U: HEX SMT TRIGGER (74LS14)	U15
10				
11	125-0125	9	U: DL 4 IN MUX (74LS253)	U14, U22, U30, U31, U38, U39, U45, U46, U52
12				
13	125-0151	2	U: 8 BIT UNIV SHFT REG. (74LS299)	U6, U7
14				
15	124-0115	1	U: 3 TO 8 LINE DECODER (74S138)	U53
16				
17	125-0140	23	U: OCT D-FLIP 3ST (74LS374)	U3-U5, U12, U13, U18-U21, U26, U28, U29
18				U35-U37, U41-U44, U48, U49, U51, U34
19	124-0104	2	U: LK AHD CRY GEN (74S182)	U25, U40
20				
21	125-0143	8	U: 4 BIT SHIFT REG. 3-ST (74LS395)	U2, U8, U9, U11, U16, U24, U32, U33
22				
23	116-1101	4	R: FX CFLM 1000HM 5% 1/4W	R3, R5, R9, R24
24				
25	116-0221	4	R: FX CFLM 22 OHM 5% 1/4W	R12, R19, R20, R32
26				
27				
28				
29	116-0471	13	R: FX CFLM 47 OHM 5% 1/4W	R1, R2, R11, R14, R15, R22, R23,
30				R26, R28, R29, R31
31				
32				
33				

FORM NO 304

WAVETEK®

TITLE: ASSEMBLY 24 BIT PROCESSOR

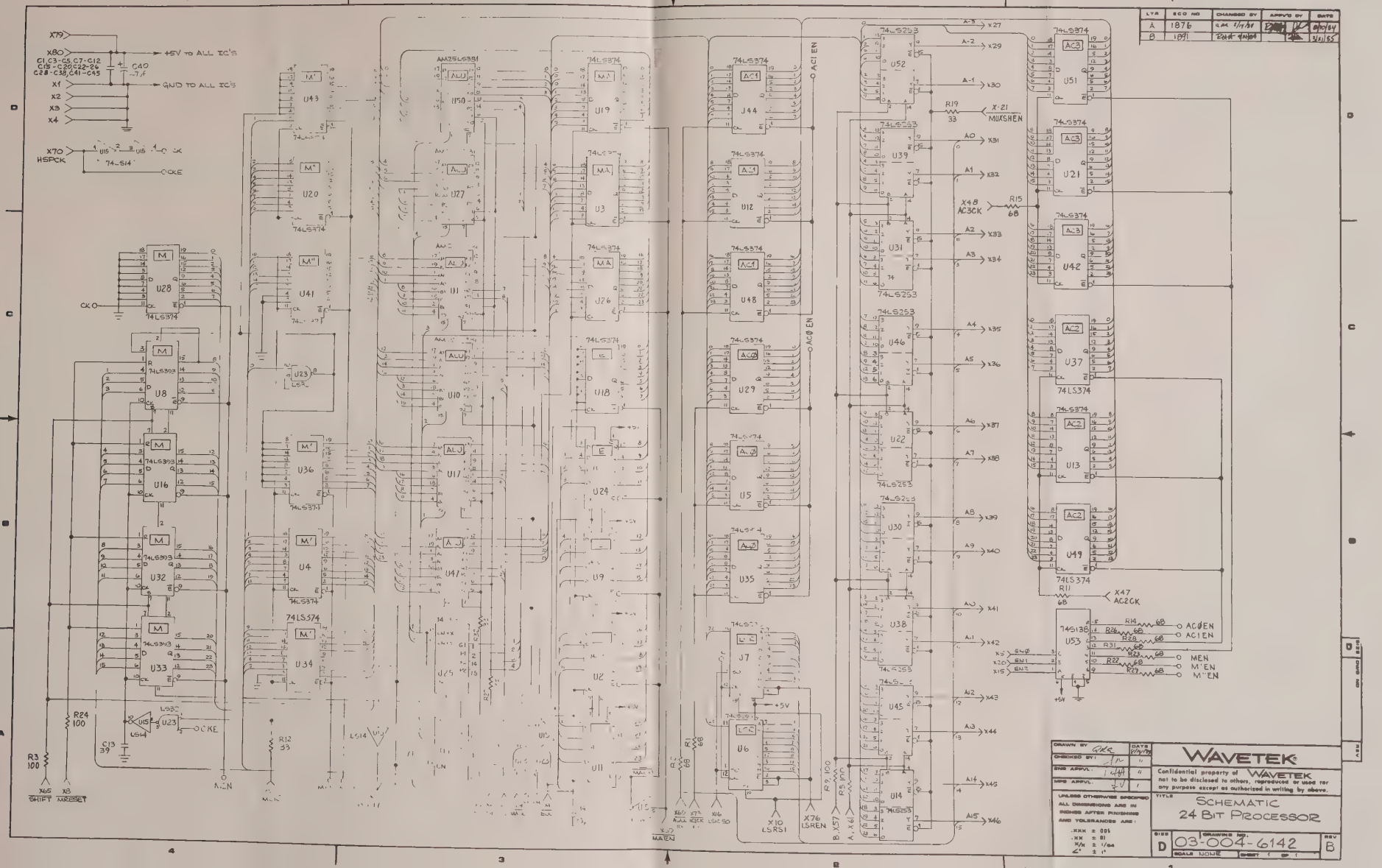
LIST OF MATERIAL: 02-004 6142 REV B

RELEASE AUTHORITY | BY | DATE | MFG | ASSY SIZE D

DATE 9-10-79 SHEET 3 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	101-0390	2	C: FX MICA DP 39 pf 10% 500V	C13, C14
35				
36	100-4102	37	C: FX MONO 0.1uf (SKYCAP) 50V Z5U	C1, C3-C5, C7-C12, C15-C20, C22-C26 C28-C38, C41-C45
37				
38				
39	109-6470	1	C: FX ELECT 47uf 20% 63V	C40
40				
41				
42				
43	05-310-0705	1	BRACKET: HOLD DOWN 5830	
44				
45	353-1604	1	SOCKET: IC 16 PIN DIP ST	INSTALL AT U53
46				
47				
48				
49	381-4062	1	M SCR: ST CD PH 4-40 x 3/8 PH	
50				
51	388-1042	1	WASHER: SPLT LK STNLS #4	
52				
53				
54				
55	387-4080	1	NUT: HX ST CD 4-40 x 1/4 AF	
56				
57	364-0405	1	EJECTOR: PC 5830 CARD CAGE	
58				
59				
60				
61				
62				
63				
64	353-1403	1	SOCKET: IC 14 PIN ST	INSTALL AT U15
65				
66	353-2001	1	SOCKET: IC 20 PIN ST	INSTALL AT U27

FORM NO 301



LTR	ECO NO	CHANGED BY	APPVD BY	DATE
A	1876	[illegible]	[illegible]	4/6/84
B	1891	[illegible]	[illegible]	3/21/85

DRAWN BY	[illegible]	DATE 1/19/84
CHECKED BY	[illegible]	11
ENG APPVL	[illegible]	11
MFG APPVL	[illegible]	1

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE: .XXX ± 005, .XX ± 01, FRACTIONS ± 1/64, ANGLES ± 1°

WAVETEK

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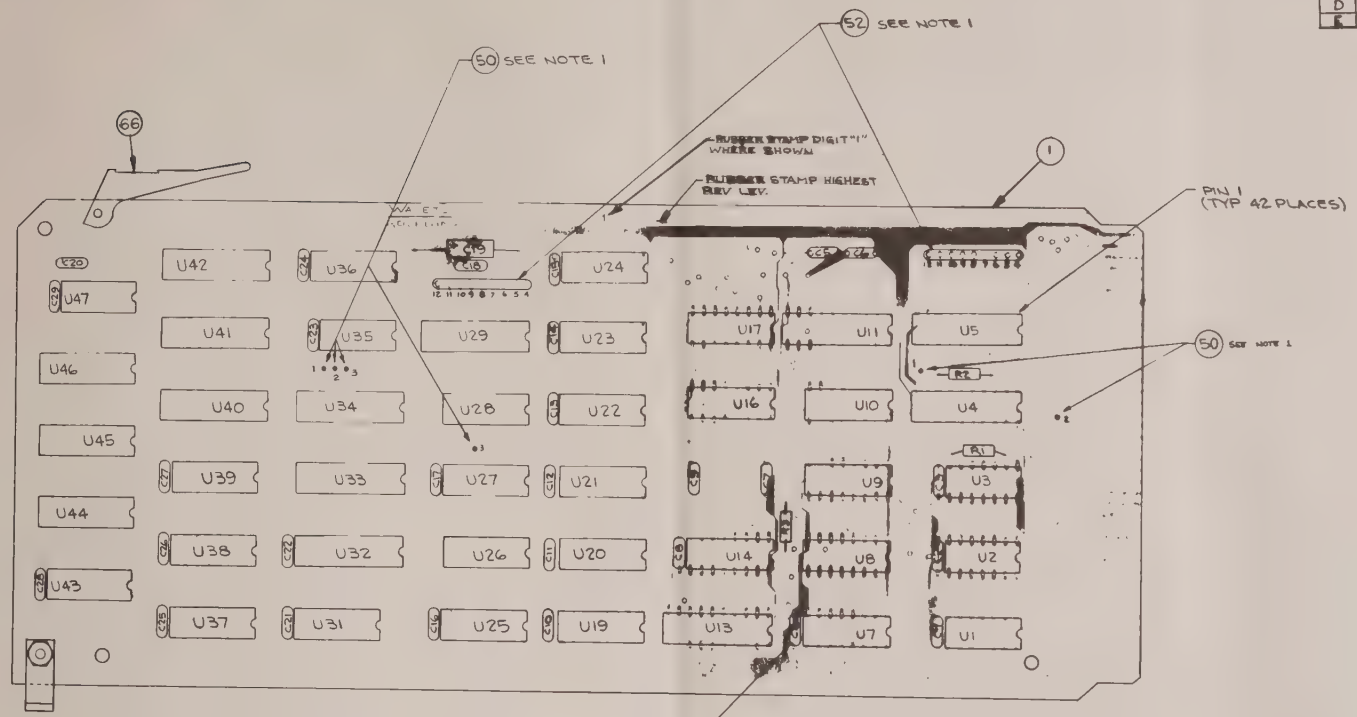
TITLE: SCHEMATIC 24 BIT PROCESSOR

SIZE D | DRAWING NO. 03-004-6142 | REV B

SCALE NONE | SHEET 1 OF 1

A	RELEASE		RHH	JV	3/20/81
B	1402	M. McMINN	RHH	JV	6/11/82
C	1413	M. McMINN	RHH	JV	6/11/82
D	1776	GAIL NAGY	RHH		3/16/83
E	8076	TM			



NOTES:
1. CONNECTIONS FOR WIRE WRAP PINS AT LOCATIONS SHOWN ARE MADE FROM PIN 1 TO PIN 1, PIN 2 TO PIN 2 ETC.

SHEETS 2 & 3 'A' SIZE.

DRAWN BY	DB	2/17/81
CHECKED BY		
ENG APPVL	RHH	3/17/81
MFG APPVL	JV	3/16/81

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER PLATING AND TOLERANCES ARE: .XXX ± .005, .XX ± .01, F/A ± 1/64°, ∠ ± 1°

WAVETEK

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TITLE: ASSEMBLY 12 BIT PROCESSOR

SIZE D | DRAWING 00[illegible]-01 | E

WAVETEK

TITLE: ASSEMBLY
12 BIT PROCESSOR

LIST OF MATERIAL: 02 004-6150

REV: E

RELEASED BY: [illegible] | ENG: [illegible] | QA: [illegible] | ENTITY SIZE: D | DATE: 1/11/79 | SHEET 2 OF 3

ITEM	PART NO.	QTY	DESCRIPTION	REMARKS
1	01-320-6150	1	P.C. BOARD, 12 BIT PROC.	
2				
3	124-7432	1	U: 74S32	U1
4				
5	124-7486	1	U: 74S86	U2
6				
7	124-7408	1	U: 74S08	U3
8				
9	125-0140	6	U: 74LS374	U4, U5, U11, U13, U40, U41
10				
11	125-0122	7	U: 74LS194	U7, U8, U9, U10, U26, U27, U28
12				
13	125-0152	2	U: 74LS399	U14, U17
14				
15	124-0114	1	U: 74S134	U16
16				
17	125-0149	3	U: 74LS158	U19, U21, U23
18				
19	129-3009	3	U: 74S189	U20, U22, U24
20				
21	125-0120	5	U: 74LS173	U25, U36, 37, 38, 39
22				
23	125-0139	1	U: 74LS273	U29
24				
25	124-0104	1	U: 74S182	U31
26				
27	126-0142	3	U: 25LS391	U32, U33, U34
28				
29	125-7432	1	U: 74LS32	U35
30				
31	125-0151	1	U: 74LS299	U42
32				
33	125-0143	1	U: 74LS393	U43

FORM NO. 276

WAVETEK®

TITLE ASSEMBLY
12 BIT PROCESSOR

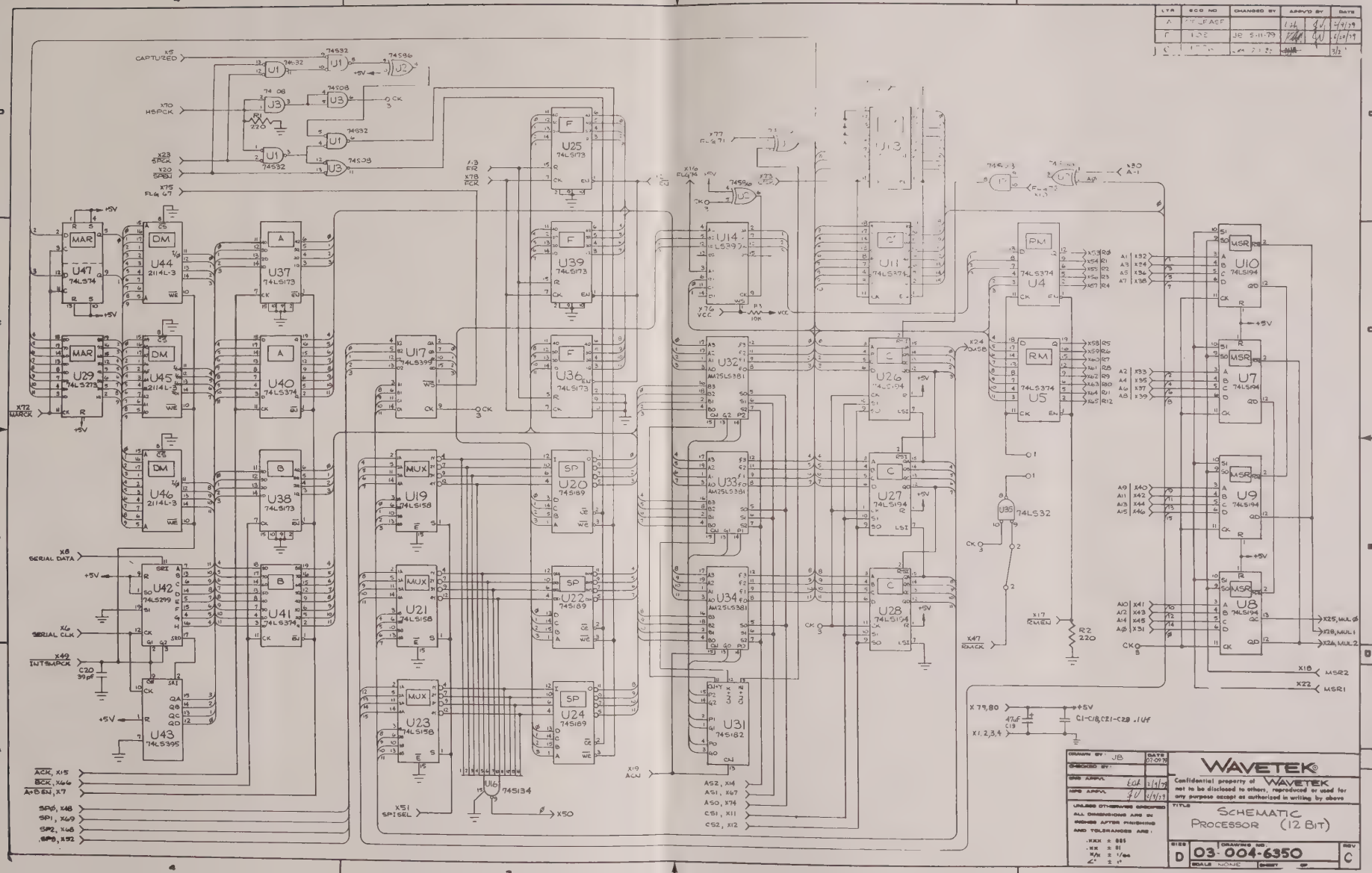
LIST OF MATERIAL
02 004-6150

REV SEE SHT 2

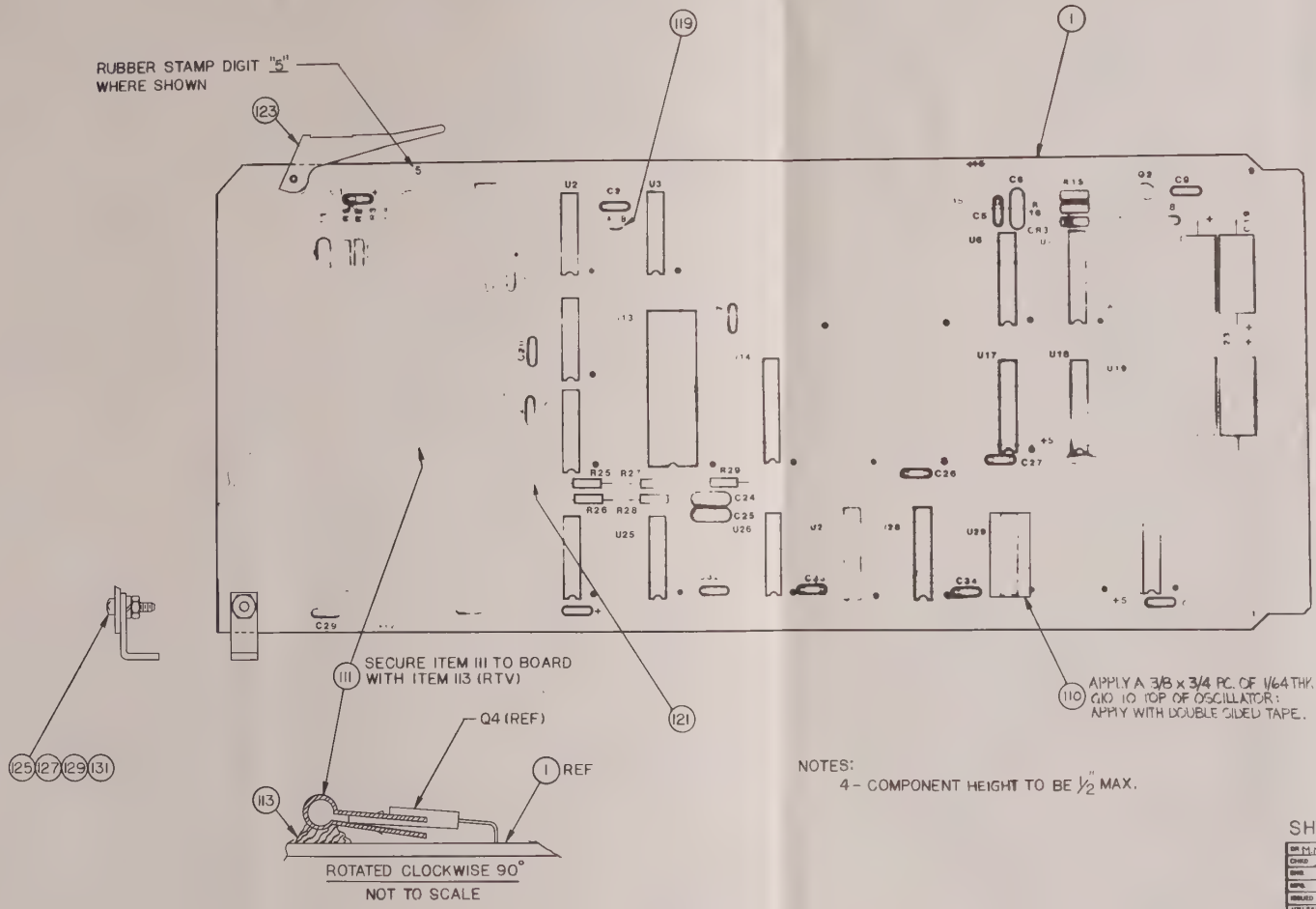
RELEASE AUTHORITY | CHKD BY | ASSY SIZE D | DATE 1/11/79 | SHEET 3 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	129-3017	3	U: 2114L-3	U44, U45, U46
35				
36	125-7474	1	U: 74LS74	U47
37				
38				
39				
40	116-1221	2	R: FXD COMP 220Ω 1/4W, 5%	R1, R2
41				
42	116-3101	1	R FXD CFLM 10K 1/4 W 5%	R3
43				
44	100-4102	27	C: FXD MONO, .1μf, 50V	C1-C18, C21-C29 (SKYCAP)
45				
46	109-6470	1	C: FXD ELECT 47μf 40-63V	C19
47				
48	101-0390	1	C: FXD MICA 39Pf 10% 500V	C20
49				
50	354-0007	6	CONN: TERM PIN WW.025 (2END)	WIRE WRAP POSTS 1 THRU 3 PAIRS
51				
52	354-0024	2	CONN: TERM 9POS SIL ST	
53				
54	378-1961	A/R	WIRE: #30 AWG SLD KYN BLU	
55				
56	05-310-0705	1	BRACKET: HOLD DOWN 5830	
57				
58	381-4062	1	MSCR: ST CD PH 4-40 x 3/8 PH	
59				
60	388-1042	1	WASHER: SPLT LK STNLS #4	
61				
62	388-3041	2	WASHER: FLT NYL #4 1/4D x 1/32T	
63				
64	387-4080	1	NUT: HX ST CD 4-40 x 1/4 AF	
65				
66	364-0405	1	EJECTOR: PC 5830 CARD CAGE	

FORM NO 301


WAVETEK
Confidential property of WAVETEK
not to be disclosed to others, reproduced or used for any purpose except as authorized in writing by above
TITLE
SCHEMATIC
PROCESSOR (12 BIT)
SIZE D
03-004-6350
REV C
SCALE NONE
SHEET
DRAWN BY JB
DATE 07-09-79
CHECKED BY
ENG APPVL
MFG APPVL
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER PLATING AND TOLERANCES ARE:
.XXX ± .005
.XX ± .01
X/X ± 1/64
∠° ± 1°
LTR ECO NO CHANGED BY APPVD BY DATE
A 79-EAEF 4/9/79
B 1325 JE 5-11-79 4/19/79
C 3/1
CAPTURED
HSPCK
SPCK
SPSEL
FLAG7
MARCK
SERIAL DATA
SERIAL CLK
INTSMPCK
ACK, X15
BCK, X46
A+B EN, X7
SPØ, X48
SPI, X49
SP2, X46
SP3, X52
SPISEL
X50
AS2, X14
AS1, X67
AS0, X74
CS1, X11
CS2, X12
MSR2
MSR1
MAR
DM
SCR
SCNSR
SP
MUX
RM
SM
U1 74LS32
U2 74S86
U3 74S08
U4 74LS374
U5 74LS374
U7 74LS194
U8 74LS194
U9 74LS194
U10 74LS194
U11 74LS374
U12 74LS374
U13
U14 74LS374
U17 74LS399
U19 74LS158
U20 74S189
U21 74LS158
U22 74S189
U23 74LS158
U24 74S189
U25 74LS173
U26 74LS194
U27 74LS194
U28 74LS194
U29 74LS273
U31 74S182
U32 AM25LS381
U33 AM25LS381
U34 AM25LS381
U35 74LS32
U36 74LS173
U37 74LS173
U38 74LS173
U39 74LS173
U40 74LS374
U41 74LS374
U42 74LS299
U43 74LS395
U44 2114L-3
U45 2114L-3
U46 2114L-3
U47 74LS74
U6 74S134
R1 220
R2 220
R3 10K
C20 39pF
C1-C18, C21-C28 .1μF
C19 47μF

ZONE	LTR	ECO NO	CHANGED BY	APPR'D BY		DATE
	A	PROTO				
	B	RELEASE		RHH		
	C	1271	N. PETERS	RHH		
	D	1271	N PETERS	RHH		10/6/81
	E	1316A	M McMINN	RHH		1/20/82
	F	1330	M. McMINN	RHH		1/20/82
	G	1368	M. McMINN	RHH		3/4/82
	H	1395	M. McMINN	RHH		3/10/82
	J	1402	M. McMINN	RHH		3/17/82
	K	1750	K Washington			3/1/83
	L	1765	K Washington			3/1/83
	M	5075	T M			3/1/83
	N	5076	T M			3/4/83



NOTES:

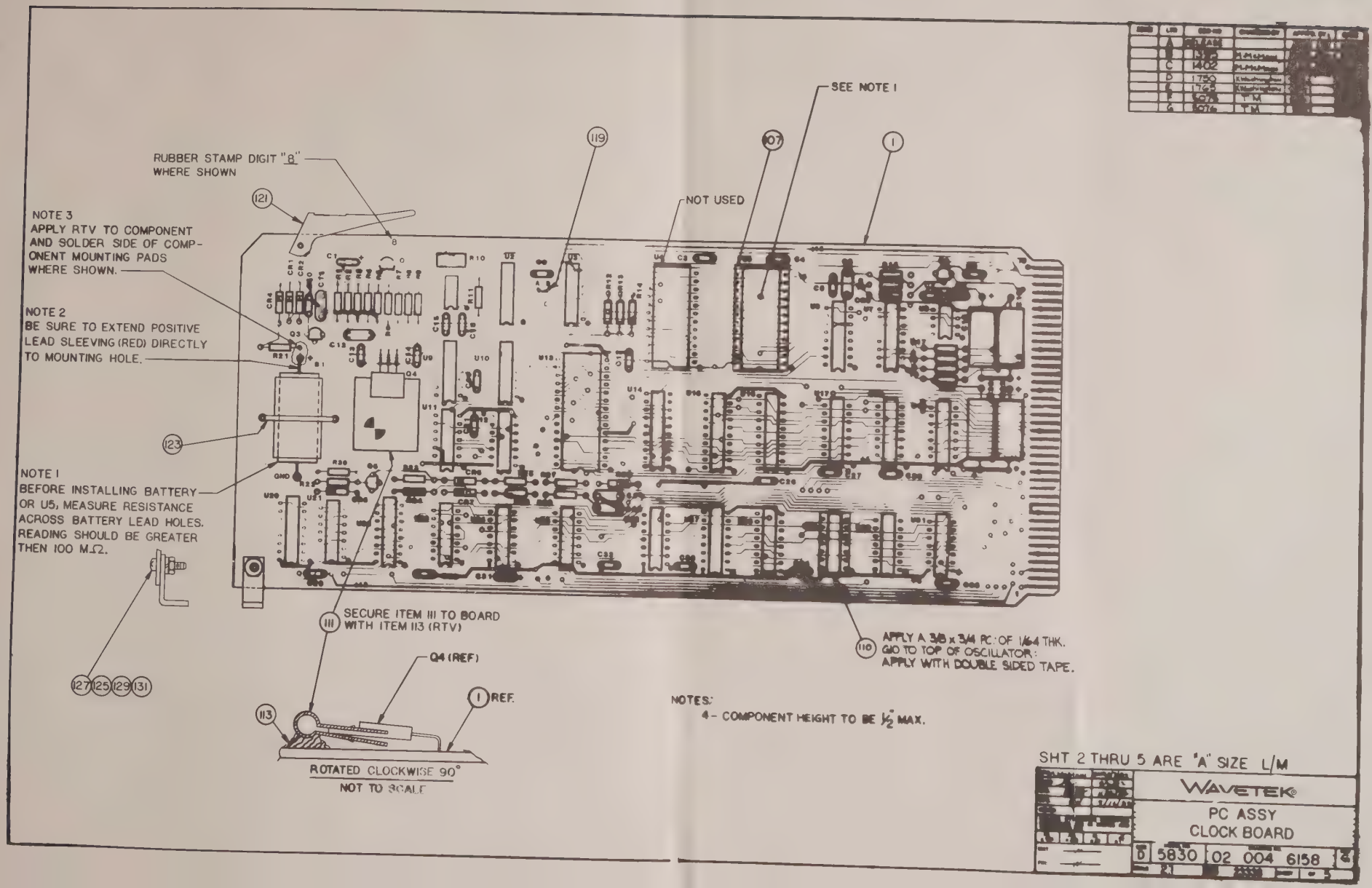
4 - COMPONENT HEIGHT TO BE ½" MAX.

SHT 2 THRU 5 ARE "A" SIZE L/M

DR M. McMINN	DATE 5/10/82	WAVETEK	
CHKD	8/2/82	PC ASSY CLOCK BOARD	
ENG	4/4/82		
MFG	7/14/82		
ISSUED			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE

MAT		SIZE D	MODEL NO 5820
FIN		DRAWING NO 02 004 6155	REV N
SCALE 2:1	CODE IDENT 23338	SHEET 1 OF 5	


RUBBER STAMP DIGIT "8" WHERE SHOWN
121
NOTE 3
APPLY RTV TO COMPONENT AND SOLDER SIDE OF COMPONENT MOUNTING PADS WHERE SHOWN.
NOTE 2
BE SURE TO EXTEND POSITIVE LEAD SLEEVING (RED) DIRECTLY TO MOUNTING HOLE.
123
NOTE 1
BEFORE INSTALLING BATTERY OR U5, MEASURE RESISTANCE ACROSS BATTERY LEAD HOLES. READING SHOULD BE GREATER THEN 100 MΩ.
127 125 129 131
119
NOT USED
107
SEE NOTE 1
1
111
SECURE ITEM 111 TO BOARD WITH ITEM 113 (RTV)
Q4 (REF)
1 REF.
113
ROTATED CLOCKWISE 90°
NOT TO SCALE
110
APPLY A 3/8 x 3/4 PC. OF 1/64 THK. GND TO TOP OF OSCILLATOR: APPLY WITH DOUBLE SIDED TAPE.
NOTES:
4- COMPONENT HEIGHT TO BE ½" MAX.
SHT 2 THRU 5 ARE "A" SIZE L/M
WAVETEK
PC ASSY
CLOCK BOARD
D 5830 02 004 6158

WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY. CLOCK BOARD	02-004-6155	N

RELEASE AUTHORITY	CHK BY	DATE	ENGR	DATE	MFG	DATE	ASSY SIZE	REL. DATE	SHEET 2 OF 5
	SM	4/15/82	[illegible]	4/16/82	GV	4/16/82	D		

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	1	01 320 6155	1	P.C. CLOCK BD	
	3	120 2082	1	U: DL LIN BIFET OP-AMP (TL082C)	U1
	5	125 7486	1	U: QUAD 2 IN OR GATE (74LS86)	U2
	7	122 7404	1	U: HEX INVERTER (7404)	U3
	9				
	11	125 0115	3	U: 3 TO 8 LINE DECODE (74LS138)	U6, U27, U28
	13	138 3311	1	U: Q: QD SPST JFET ANALOG SW	U7 (LF13331N)
	15	120 1016	1	U: LIN BIFET OP-AMP (TL081CP)	U8
	17	125 7474	2	U: DUALTYPE D FLIP-FLOP (74LS74)	U9, U11
	19	125 0101	3	U: 8 BIT SHFT REG. SIPO (74LS164)	U10, U21, U23
	21	125 7408	1	U: QUAD IN AND GATE	U12
	23	129 3207	1	U: COUNTER TIMER 4 MHz	U13 (MK 3882-4)
	25	125 0139	1	U: OCT D-FLIP W/CLR (74LS273)	U14,
	27				
	29	125 0109	2	U: HEX TYPE D FLIP-FLOP (74LS174)	U17, U19
	31	125 0110	1	U: QD D FLIP-FLOP (74LS175)	U18
	33	125 0157	2	U: 8 BT SHFT REG PISO (74LS165)	U20, U22

R.S. KNAPP

WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY. CLOCK BOARD	02-004-6158	G

RELEASE AUTHORITY	CHK BY	DATE	ENG	DATE	MFG	DATE	ASSY SIZE	REL DATE	SHEET
	SR	4/14/84	[illegible]	4/16/84	[illegible]	4/16/84	D	4/16/84	SHEET 2 OF 5

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	1	01 320 6155	1	P.C. CLOCK BD	
	3	120 2082	1	U: DL LIN BIFET OP-AMP (TL082C)	U1
	5	125 7486	1	U: QUAD 2 IN OR GATE (74LS86)	U2
	7	122 7404	1	U: HEX INVERTER (7404)	U3
	9	129 3031	1	U: SRAM 2048 x 8 CMOS	U5
	11	125 0115	3	U: 3 TO 8 LINE DECODE (74LS138)	U6, U27, U28
	13	138 3311	1	U: Q: QD SPST JFET ANALOG SW	U7 (LF13331N)
	15	120 1016	1	U: LIN BIFET OP-AMP (TL081CP)	U8
	17	125 7474	2	U: DUALTYPE D FLIP-FLOP (74LS74)	U9, U11
	19	125 0101	3	U: 8 BIT SHFT REG. SIPO (74LS164)	U10, U21, U23
	21	125 7408	1	U: QUAD IN AND GATE	U12
	23	129 3207	1	U: COUNTER TIMER 4 MHz	U13 (MK 3882-4)
	25	125 0139	2	U: OCT D-FLIP W/CLR (74LS273)	U14, U16
	27	125 0154	1	U: OCT BUS x CVR 3ST (74LS245)	U15
	29	125 0109	2	U: HEX TYPE D FLIP-FLOP (74LS174)	U17, U19
	31	125 0110	1	U: QD D FLIP-FLOP (74LS175)	U18
	33	125 0157	2	U: 8 BT SHFT REG PISO (74LS165)	U20, U22

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WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY CLOCK BOARD	02-004 6155	SEE SHT. 2

RELEASE AUTHORITY	CHK BY	DATE	ENGR	DATE	MFG	DATE	ASSY SIZE	REL. DATE	SHEET 3 OF 5
	SR	4/15/82	[illegible]	4/15/82	[illegible]	4/14/82	D		

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	35				
	37	122 7438	1	U: QD 2 IN NAND BUFFER (7438)	U24
	39	125 7414	1	U: HEX SCHMIT TRIGGER (74LS14)	U25
	41	124 7437	2	U: QUAD 2 IN NAND BUFFER (74S37)	U26, U31
	43	173 6005	1	U: OSC DIP 16.384 MHz (C0238T)	U29
	45	125 0134	1	U: DL 4 BIT BIN CTR (74LS393)	U30
	47	116 3471	1	R: FX CFLM 47K 5% 1/4W	R26
	49	116 4471	2	470K	R15, R16
	51	116 3101	4	10K	R17 THRU R20,
	53	116 2471	1	4.7K	R27
	55	116 0471	2	47Ω	R28, R29
	57	116 2101	1	1K	R24
	59				
	61				
	63	116 3271	1	R: FX CFLM 27K 5% 1/4W	R25
	65	111 2211	2	R: FX MFLM 2.21K 1% 1/10W T2	R1, R9,
	67	112 1001	1	R: FX MFLM 10K 1% 1/10W T2	R8
	68	111 1581	1	R: FX MFLM 1.58K 1% 1/10W T2	R11

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WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY CLOCK BOARD	02-004 6158	SEE SHT. 2

RELEASE AUTHORITY	CHK BY	DATE	ENG	DATE	MFG	DATE	ASSY SIZE	REL. DATE	SHEET
	SK	4/14/82	[illegible]	4/16/82	[illegible]	4/16/82	D	4/16/82	3 OF 5

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	35				
	37	122 7438	1	U: QD 2 IN NAND BUFFER (7438)	U24
	39	125 7414	1	U: HEX SCHMIT TRIGGER (74LS14)	U25
	41	124 7437	2	U: QUAD 2 IN NAND BUFFER (74S37)	U26, U31
	43	173 6005	1	U: OSC DIP 16.384 MHz (C0238T)	U29
	45	125 0134	1	U: DL 4 BIT BIN CTR (74LS393)	U30
	47	116 3471	1	R: FX CFLM 47K 5% 1/4W	R26
	49	116 4471	2	470K	R15, R16
	51	116 3101	7	10K	R17 THRU R20, R12, R13, R14
	53	116 2471	1	4.7K	R27
	55	116 0471	2	47Ω	R28, R29
	57	116 2101	2	1K	R21, R24
	59	116 1331	2	330Ω	R23, R30
	61	116 1221	1	220Ω	R22
	63	116 3271	1	R: FX CFLM 27K 5% 1/4W	R25
	65	111 2211	2	R: FX MFLM 2.21K 1% 1/10W T2	R1, R9,
	67	112 1001	1	R: FX MFLM 10K 1% 1/10W T2	R8
	68	111 1581	1	R: FX MFLM 1.58K 1% 1/10W T2	R11

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WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY CLOCK BOARD	02-004-6155	SEE SHT. 2

RELEASE AUTHORITY	CHK BY	DATE	ENG.	DATE 4/1/82	MFG	DATE 4/16/82	ASSY SIZE D	REL. DATE	SHEET 4 OF 5

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	69	112 1140	1	R: FX MFLM 17.4K 1% 1/8 W TO	R5
	71	112 2261	1	22.6K 1/10W T2	R7
	73	110 5111	2	511Ω	R2, R6
	75	111 1001	2	R: FX MFLM 1.0K 1% 1/10W T2	R3, R4
	77	118 2101	1	R: VAR. CMT 1.0K 3/8 SQ EM	R10
	79	109 6100	2	C: FX TANT 10uf 20% 20V	C1, C31
	81	101 1100	3	C: FX MICA DP 100Pf 10% 500V	C6, C24, C25
	83	100 3105	2	C: FX MONO .01uf +80-20% 50V	C7, C8
	85	100 4102	19	C: FX MONO .1uf 50V Z5U	C2, C5, C9, C13 THRU C17 C20, C21, C26 THRU C30, C32 THRU C35
	87	101 1500	2	C: FX MICA DP 500Pf 10% 500V	C11, C12
	89	109 6470	4	C: FX ELECT 47uf 20% 63V	C18, C19, C22, C23
	91	132 0457	1	CR: SL LW LK 70 PIV 200MW (IN457)	CR3,
	93				
	95				
	97				
	99	120 0053	1	Q: P.V. REG 5V (78L05)	Q1,
	101	120 0054	1	Q: N.V. REG 5V (79L05)	Q2

R.S. KNAPP

WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY CLOCK BOARD	02-004-6158	SEE SHT. 2

RELEASE AUTHORITY	CHK BY	DATE	ENG	DATE	MFG	DATE	ASSY SIZE	REL DATE	SHEET
	SH	4/7/82	[illegible]	4/15/82	SV	4/16/82	D	4/16/82	4 OF 5

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	69	112 1740	1	R: FX MFLM 17.4K 1% 1/8 W T0	R5
	71	112 2261	1	22.6K 1/10W T2	R7
	73	110 5111	2	511Ω	R2, R6
	75	111 1001	2	R: FX MFLM 1.0K 1% 1/10W T2	R3, R4
	77	118 2101	1	R: VAR. CMT 1.0K 3/8 SQ EM	R10
	79	109 6100	2	C: FX TANT 10uf 20% 20V	C1, C31
	81	101 1100	3	C: FX MICA DP 100Pf 10% 500V	C6, C24, C25
	83	100 3105	2	C: FX MONO .01uf +80-20% 50V	C7, C8
	85	100 4102	22	C: FX MONO .1uf 50V Z5U	C2 THRU C5, C9, C10, C13 THRU C17 C20, C21, C26 THRU C30, C32 THRU C35
	87	101 1500	2	C: FX MICA DP 500Pf 10% 500V	C11, C12
	89	109 6470	4	C: FX ELECT 47uf 20% 63V	C18, C19, C22, C23
	91	132 0457	3	CR: SL LW LK 70 PIV 200MW (IN457)	CR2, CR3, CR4
	93	132 0277	2	CR: GER 120 PIV 100MA (IN277)	CR6, CR7
	95	131 9360	1	CR: SL ZR 3.6V 5% 400MW	CR5
	97	130 0110	1	CR: SIL RECT 50 PIV 1A (IN4001)	CR1
	99	120 0053	2	Q: P.V. REG 5V (78L05)	Q1, Q3
	101	120 0054	1	Q: N.V. REG 5V (79L05)	Q2

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WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY CLOCK BOARD	02-004-6155	SEE SHT. 2

RELEASE AUTHORITY	CHK BY	DATE	ENG	DATE	MFG	DATE	ASSY SIZE	REL. DATE	SHEET 5 OF 5
	SK	4/2/87	[illegible]	4/15/87	[illegible]	4/16/87	D		

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	103	120 0120	1	Q: P.V. REG 12V 1A TO-220	Q4 (7812)
	105				
	107				
	109				
	110	54-00213	1	SOCKET IC 14 PIN FOR U29 AUGAT #514AG10D	
	111	367 0410	1	HEAT SINK: TO-202 CLIP (6047PB)	MOUNT ON Q4
	113	500 2001	A/R	RTV: CLEAR PASTE	
	115				
	117				
	119	378 0601	A/R	WIRE: BUS TINNED #22 AWG.	
	121	378 1961	A/R	WIRE: #30 AWG SLD KYN BLUE	
	123	364-0405	1	EJECTOR: PC 5830 CARD CAGE	
	125	05-310-0705	1	BRACKET: HOLD DOWN 5830	
	127	381-4062	1	M: SCR ST CD PH 4-40 x 3/8 PH	
	129	388-1042	1	WASHER: SPLT LK STNLS #4	
	131	387-4080	1	NUT: HX ST CD 4-40 x 1/4 AF	

S. KNAPP

WAVETEK

CODE IDENT	TITLE	LIST OF MATERIAL	REV.
23338	P.C. ASSY CLOCK BOARD	02-004-6158	SEE SHT 2

RELEASE AUTHORITY	CHK BY	DATE	ENG	DATE	MFG	DATE	ASSY SIZE	REL DATE	SHEET 5 OF 5
	S/L	4/15/82	[illegible]	4/16/82	[illegible]	4/16/82	D	4/16/82	

REV SIG	ITEM	PART NO.	QTY	DESCRIPTION	REF DES. — REMARKS —
	103	120 0120	1	Q: P.V. REG 12V 1A TO-220	Q4 (7812)
	105	137 6523	1	Q: SIL PNP (MPS6523)	Q5
	107	353 2402	1	SOCKET: IC 24 PIN DIP ST	FOR U5
	109				
	110	54-00213	1	SOCKET: IC 14 PIN AUGAT # 514AG10D	FOR U29
	111	367 0410	1	HEAT SINK: TO-202 CLIP (6047PB)	MOUNT ON Q4
	113	500 2001	A/R	RTV: CLEAR PASTE	
	115	161 1001	1	BATTERY: LITHIUM (TL2150)	B1
	117				
	119	378 0601	A/R	WIRE: BUS TINNED # 22 AWG.	
	121	364 0405	1	EJECTOR: PC 5830 CARD CAGE	
	123	377 4001	1	TIE: CABLE NY NAT 3/4 MAX DIA	FOR B1
	125	05 310 0705	1	BRACKET: HOLD DOWN 5830	
	127	381 4062	1	M SCR: ST CD PH 4-40 X 3/8 PH	
	129	388 1042	1	WASHER: SPLT LK STNLS # 4	
	131	387 4080	1	NUT: HX ST CD 4-40 X 1/4 AF	

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ZONE	LTR	ECO NO	CHANGED BY	APPR'D BY	DATE
	A				
	B				
	C		N P	RM	JFV 10/11/81
	D			RM	JFV 11/20/81
	E		M MCMINN	RM	JFV 1/25/82
	F		M MCMINN	[illegible]	JFV 4/9/82

DESG	+15V	VCC	GND	-15V
U1	8			4
U2		14	7	
U3		14	7	
U4				
U5				
U6		16	8	
U7	12			5
U8	7			4
U9		14	7	
U10		14	7	
U11		14	7	
U12		14	7	
U13		24	5	
U14		20	10	
U15				
U16				
U17		16	8	
U18		16	8	
U19		16	8	
U20		16	8	
U21		14	7	
U22		16	8	
U23		14	7	
U24		14	7	
U25		14	7	
U26		14	7	
U27		16	8	
U28		16	8	
U29		14	7	
U30		14	7	
U31		14	7	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE: X/X ±1/64, XXX ±.005, XX ±.01, ±1°

MATERIAL:

FINISH:

DO NOT SCALE DWG
REMOVE ALL BURRS
BREAK SHARP EDGES

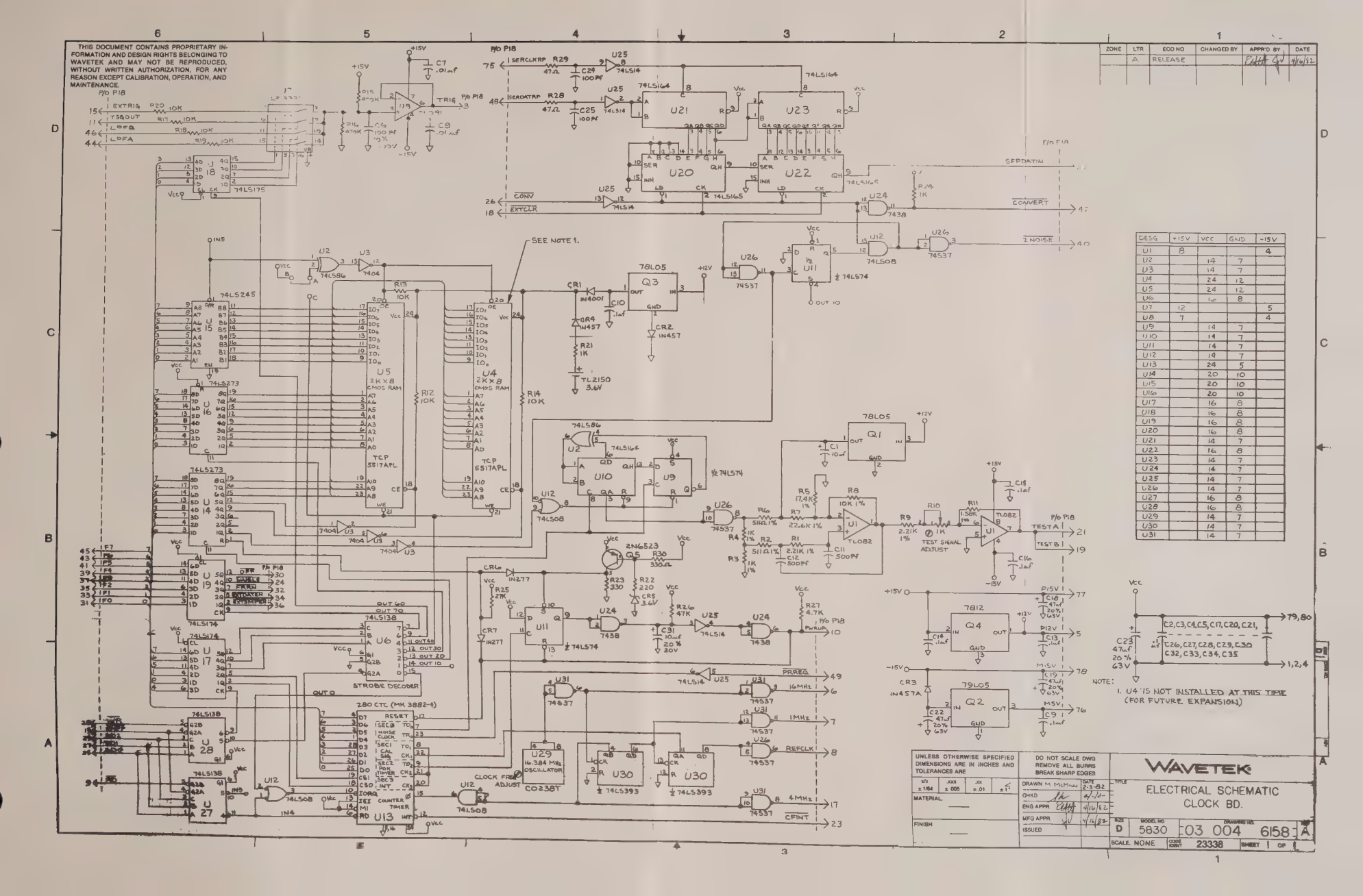
DRAWN: M. McMinn DATE 2-3-82
CHKD
ENG APPR
MFG APPR
ISSUED

WAVETEK

TITLE: ELECTRICAL SCHEMATIC CLOCK BD.

SIZE D | MODEL NO. 5820 | DRAWING NO. 03 004 6155 | REV F

SCALE NONE | CODE IDENT 23338 | SHEET 1 OF 1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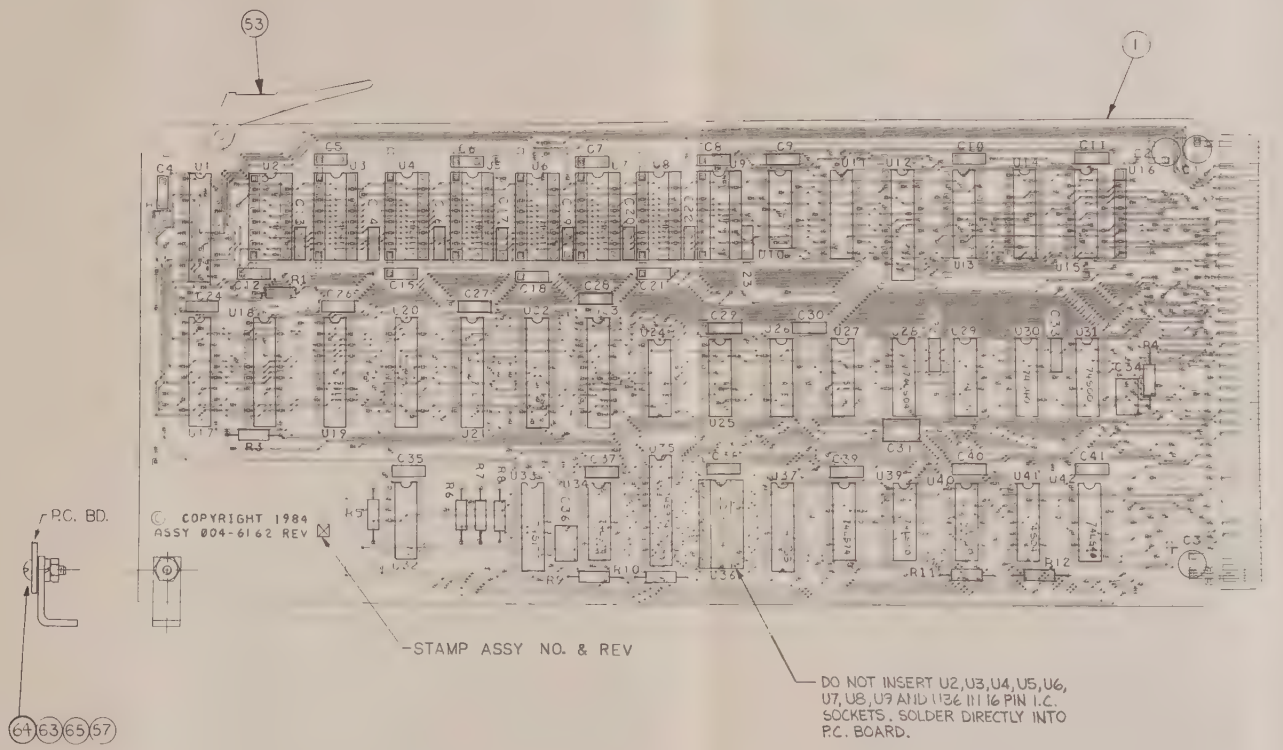
ZONE | LTR | ECO NO | CHANGED BY | APPR'D BY | DATE
A | RELEASE | 4/16/82
DESG | +15V | VCC | GND | -15V
U1 | 8 | | | 4
U2 | | 14 | 7 |
U3 | | 14 | 7 |
U4 | | 24 | 12 |
U5 | | 24 | 12 |
U6 | | 16 | 8 |
U7 | 12 | | | 5
U8 | 7 | | | 4
U9 | | 14 | 7 |
U10 | | 14 | 7 |
U11 | | 14 | 7 |
U12 | | 14 | 7 |
U13 | | 24 | 5 |
U14 | | 20 | 10 |
U15 | | 20 | 10 |
U16 | | 20 | 10 |
U17 | | 16 | 8 |
U18 | | 16 | 8 |
U19 | | 16 | 8 |
U20 | | 16 | 8 |
U21 | | 14 | 7 |
U22 | | 16 | 8 |
U23 | | 14 | 7 |
U24 | | 14 | 7 |
U25 | | 14 | 7 |
U26 | | 14 | 7 |
U27 | | 16 | 8 |
U28 | | 16 | 8 |
U29 | | 14 | 7 |
U30 | | 14 | 7 |
U31 | | 14 | 7 |
SEE NOTE 1.
NOTE:
1. U4 IS NOT INSTALLED AT THIS TIME (FOR FUTURE EXPANSION)
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE
DO NOT SCALE DWG REMOVE ALL BURRS BREAK SHARP EDGES
DRAWN M McMinn DATE 2-3-82
CHKD DATE
ENG APPR DATE 4/16/82
MFG APPR DATE 4/16/82
ISSUED
MATERIAL
FINISH
WAVETEK
TITLE
ELECTRICAL SCHEMATIC
CLOCK BD.
SIZE D
MODEL NO 5830
DRAWING NO 003 004 6158
REV A
SCALE NONE
CODE IDENT 23338
SHEET 1 OF 1

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND DESIGN RIGHTS BELONGING TO WAVETEK AND MAY NOT BE REPRODUCED, WITHOUT WRITTEN AUTHORIZATION, FOR ANY REASON EXCEPT CALIBRATION, OPERATION, AND MAINTENANCE

ZONE	LTR	ECO NO	CHANGED BY	APPR'D. BY	DATE
	A	1871			
	B	1890	Tabb	[illegible]	9/4/85
	C	5076	T.M.	[illegible]	8/6/86



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE

X/X ± 1/64	XXX ± .005	XX ± .01	∠ ± 1°

MATERIAL —

FINISH —

DO NOT SCALE DWG
REMOVE ALL BURRS
BREAK SHARP EDGES

	DATE
DRAWN	
CHKD	
ENG APPR	
MFG APPR	
ISSUED	

WAVETEK®

TITLE: P.C. ASSEMBLY MEMORY BOARD

SIZE	MODEL NO	DRAWING NO	REV
D	5820/30	02-004-6162	C

SCALE 2/1 | CODE IDENT 50621 | SHEET 1 OF 3

WAVETEK®

TITLE: 5830 MEMORY BOARD

LIST OF MATERIAL

02 004-6162

REV C

DWN JV | D

DATE 2/5/81 | SHEET 2 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6162	1	BOARD, P.C.	
2				
3	109-6100	3	CAP: FXD TANT 10uf, 20V	C1, C2, C3
4				
5	101-1100	1	CAP: FXD MICA DIP 100pf, 500V	C34
6				
7	101-1200	1	CAP: FXD MICA DIP 200pf, 500V	C31
8	101-0470	1	CAP: FXD MICA DIP 47pf 500V	C36
9	100-4102	34	CAP: FXD MONO .01uf 50V	C4-C24, C26-C30, C32, C33, C35, C37-C41
10	116-0471	2	R: FXD COMP 47Ω 5% 1/4W	R1, R3
11	116-0681	2	R: FXD COMP 680Ω 5% 1/4W	R10, R11
12				
13	116-1101	2	R: FXD COMP 100Ω 5% 1/4W	R9, R12
14				
15	128-2105	1	U: PULLUP NET 1K X 7 2% SIP	U16
16	128-0687	1	U: RES NET 68 OHM X 8 DIP	U11
17	116-3101	5	R: FXD COMP 10KΩ 5% 1/4W	R4, R5, R6, R7, R8
18				
19	125-0140	7	U: 74LS374	U17-U23
20				
21	129-3016	8	U: MK4116	U2-U9
22				
23	125-8195	2	U: 81LS95	U1, U12
24				
25	125-0149	2	U: 74LS158	U14, U15
26				
27	125-0117	1	U: 74LS151	U13
28				
29	125-0134	1	U: 74LS393	U10
30				
31	125-7410	2	U: 74LS10	U25, U39
32				
33	124-0140	1	U: 74S374	U35

FORM NO 304

WAVETEK®

TITLE
5830
MEMORY BOARD

RELEASE AUTHORITY | CHK BY TM | ENG gV | ARCY SIZE D

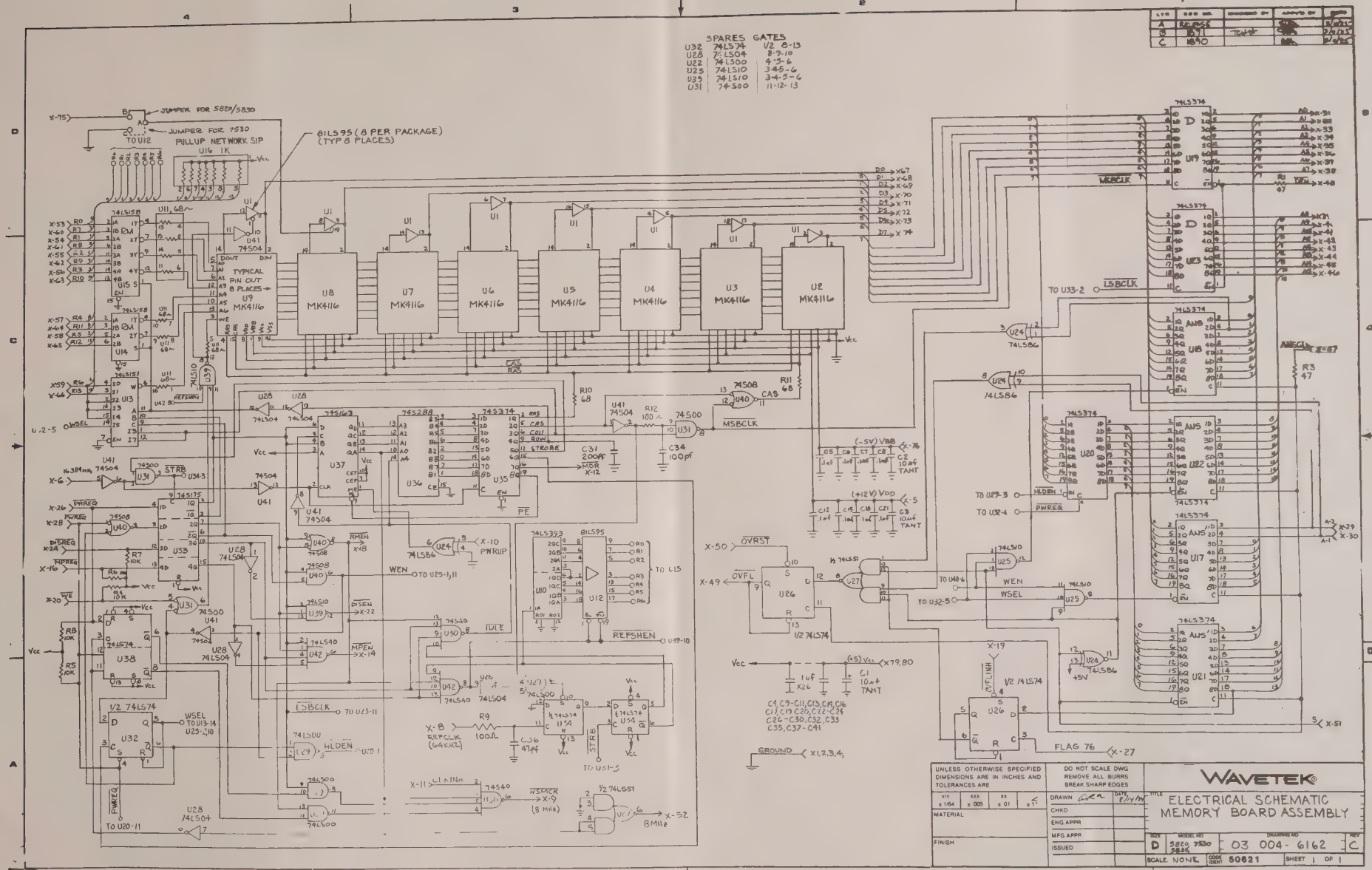
LIST OF MATERIAL
02 004-6162

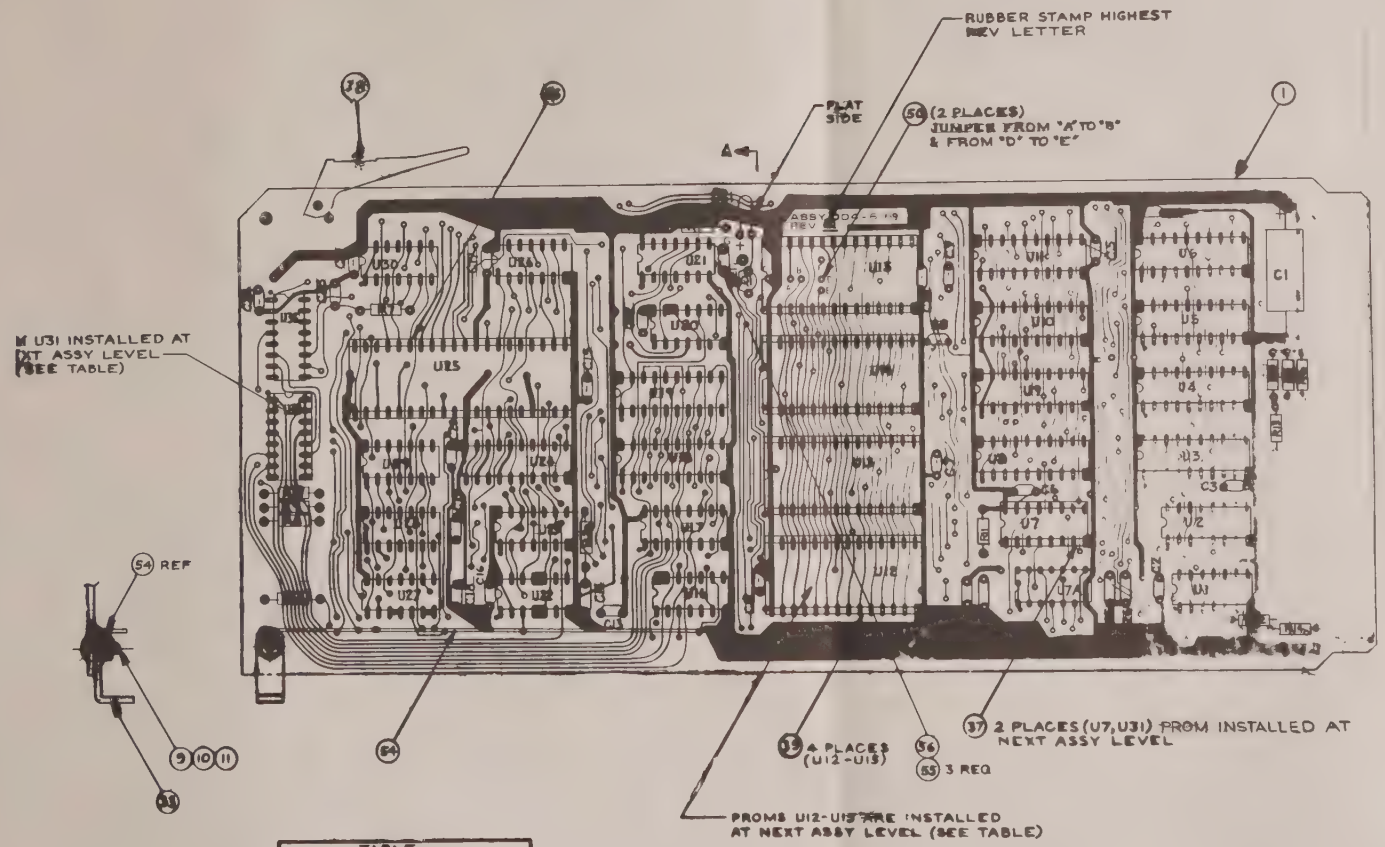
DEV E
SHT 2

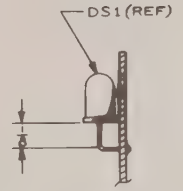
DATE 2/5/81 | SHEET 3 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	125-7486	1	U: 74LS86	U24
35				
36	125-7451	1	U: 74LS51	U27
37				
38	125-7474	4	U: 74LS74	U26, U32, U34, U38
39				
40	125-7404	1	U: 74LS04	U28
41				
42	124-7404	1	U: 7404	U41
43				
44	125-7400	1	U: 74LS00	U29
45				
46	124-7400	1	U: 7400	U31
47				
48	124-7440	1	U: 7440	U30
49				
50	125-7440	1	U: 74LS40	U42
51				
52	124-7408	1	U: 7408	U40
53	369-0405	1	EJECTOR: PC5830 CARD CAGE	
54	124-0119	1	U: 74S163	U37
55				
56	021-0014	1	PROM: PGMD 530 MEM U35 (129-3001)	U36
57	387-4080	1	NUT: HX ST CD 4-40 x 1/4 AF	
58	124-0110	1	U: 74S175	U33 SIGNETICS ONLY
59				
60				
61				
62				
63	05-310-0705	1	BRACKET: HOLD DOWN 5830	
64	381-4062	1	M SCR: ST CD PH 4-40 x 3/8 PH	
65	388-1042	1	WASHER: SPLT LK STNLS #4	

FORM NO 304


SPARES GATES
U32 74LS74 1/2 8-13
U28 74LS04 8-9-10
U22 74LS00 4-5-6
U25 74LS10 3-45-6
U29 74LS10 3-4-5-6
U31 74S00 11-12-13
JUMPER FOR 5820/5830
TO U12
JUMPER FOR 7530
PULLUP NETWORK SIP
U16 1K
8ILS95 (8 PER PACKAGE)
(TYP 8 PLACES)
TYPICAL
PIN OUT
8 PLACES
U8 MK4116
U7 MK4116
U6 MK4116
U5 MK4116
U4 MK4116
U3 MK4116
U2 MK4116
MSBCLK
LSBCLK
REFSHEN
CAS
RAS
STROBE
MSCR
PE
PWREQ
PWRUP
WEN
WSEL
HLDEN
IDLE
OVRST
OVFL
OVFLINH
REFCLK (64KHZ)
8MHz
FLAG 76
GROUND
(-5V) VBB
(+12V) VDD
C34 100pf
C31 200pf
R10 68
R11 68
R12 100Ω
R3 47
R9 100Ω
C36 47pf
C1 10uf TANT
C2 10uf TANT
C3 10uf TANT
C9-C11,C13,C14,C16
C17,C19,C20,C22-24
C26-C30,C32,C33
C35,C37-C41
WAVETEK
ELECTRICAL SCHEMATIC
MEMORY BOARD ASSEMBLY
DRAWING NO 03 004-6162
SCALE NONE
SHEET 1 OF 1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE
DO NOT SCALE DWG
REMOVE ALL BURRS
BREAK SHARP EDGES
MATERIAL
FINISH
DRAWN
CHKD
ENG APPR
MFG APPR
ISSUED


RUBBER STAMP HIGHEST REV LETTER
FLAT SIDE
(56) (2 PLACES) JUMPER FROM "A" TO "B" & FROM "D" TO "E"
(1)
(38)
(2)
A
M U31 INSTALLED AT DXT ASSY LEVEL (SEE TABLE)
(54) REF
(9) (10) (11)
(39)
(24)
(33) 4 PLACES (U12-U15)
(56) (55) 3 REQ
(37) 2 PLACES (U7, U31) PROM INSTALLED AT NEXT ASSY LEVEL
PROMS U12-U15 ARE INSTALLED AT NEXT ASSY LEVEL (SEE TABLE)



SECTION A-A
(SCALE 4:1)

TABLE		
MODEL	U12-U15	U31
5820	2764	NOT USED
5830	27128	825131

SHEETS 2 & 3 ARE "A" SIZE L/M

WAVETEK

ASSEMBLY
Z80 PROCESSOR BD

D 5820/5830 02-004-6169

SCALE 2:1 SHEET 1 OF 3

WAVETEK®

TITLE: ASSEMBLY
Z80 PROCESSOR BOARD

LIST OF MATERIAL: 02-004-6169

REV: C

RELEASE AUTHORITY	CHK BY	ENG	MFG	ASSY SIZE
				D

DATE 3/24/82 | SHEET 2 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	01-320-6169	1	P.C.: Z80 PROCESSOR	5820/5830
2				
3	125-7432	1	U: QUAD 2 IN OR GATE, 74LS32	U1
4				
5	125-0150	1	U: 8 BT ADRS LATCH, 74LS259	U2
6				
7	125-8195	10	U: OCT BUFF 3ST, 81LS95	U3,U4,U5,U6,U8,U9,U10,U18,U19,U24
8				
9	381-4062	1	SCR: ST CD PH 4-40 X 3/8 PH	
10	388-1042	1	WASHER: SPLT LK STNLS #4	
11	387-4080	1	NUT: HX ST CD 4-40 X 1/4 AF	
12				
13	125-0140	1	U: OCT D-FLIP 3ST, 74LS374	U11
14				
15	125-0106	1	U: 4 BIT SHIFT REG 74LS195	U32
16				
17	125-7474	3	U: DUAL TYPE FLIP FLOP, 74LS74	U16, U20, U28
18				
19	125-0157	1	U: 8BT SHFT REG, PISO 74LS165	U17
20				
21	125-7408	1	U: QUAD 2 IN AND GATE, 74LS08	U21
22				
23	125-7437	1	U: QUAD 2 IN NAND BUFFER, 74LS37	U22
24				
25	125-7404	2	U: HEX INVERTER, 74LS04	U23, U26
26				
27	125-7402	1	U: QUAD 2 IN NOR GATE, 74LS02	U27
28				
29	125-7414	1	U: HEX SMT TRGR, 74LS14	U7A
30				
31	125-7410	2	U: TRIPLE 3 IN NAND GATE, 74LS10	U29, U30
32	364-0405	1	EJECTOR: PC 5830 CARD CAGE	
33	05-310-0705	1	BRACKET - HOLD DOWN	

FORM NO 304

WAVETEK®

TITLE: ASSEMBLY Z80 PROCESSOR BOARD

LIST OF MATERIAL: 02-004-6169

REV: SEE SHT 2

RELEASE AUTHORITY | CHK BY | ENG | MFG | ASSY SIZE: D | DATE: 3/24/82 | SHEET 3 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34	129-3206	1	Z-80 MICRO PROCESSOR 4 MHZ	U25
35				
36	353-4005	1	SOCKET: IC 40 PIN DIP ST	INSTALL AT U25
37	353-1604	2	SOCKET: IC 16 PIN ST	INSTALL AT U7, U31
38				
39	353-2800	4	SOCKET: IC 28 PIN DIP ST	INSTALL AT U12, U13, U14, U15
40	171-1605	1	LED: RED DIF 0.8 MCD @ 20	DS1
41	136-4122	1	Q: SIL PNP (2N4122)	Q1
42				
43	116-1151	1	R: FX CFLM 150 OHM 5%, 1/4W	R1
44	116-1331	4	R: FX COMP 330 OHM 5%, 1/4W	R2, R12-R14
45				
46	116-3101	7	R: FX COMP 10K OHM 5%, 1/4W	R3, R4, R5, R6, R9, R10, R11
47				
48	116-1471	1	R: FX COMP 470 OHM 5%, 1/4W	R7
49				
50	378-1961	A/R	WIRE: #30 AWG SLD KYN BLUE	
51				
52	116-2101	1	R: FX COMP 1.0K OHM 5%, 1/4W	R8
53				
54	05-161-9002	1	BUSS BAR: 5 TERM x 1" SP	
55	353-0104	3	SOCKET: JUMPER	E1
56	352-0202	1	PLUG: SHORTING	E1
57				
58	109-6470	1	C: FX ELECT 47uf 20% 63V	C1
59				
60	100-4102	21	C: FX MONO 0.1uf 50V Z5U	C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12
61				
62				C13, C15, C16, C17, C18, C19, C20, C21, C24
63				C27
64				
65	101-1100	3	C: FX MICA 100pf 10% 500V	C22, C25, C26
66	101-1200	2	C: FX MICA 200pf 10% 500V	C23, C14

FORM NO 304

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ZONE	LTR	ECO NO	CHANGED BY	APPR'D BY	DATE
	A	ECO 1917			3/31/85
	B	1870			3/21/85

DESG	+5V	GND
U1	14	7
U2	16	8
U3	20	10
U4	20	10
U5	20	10
U6	20	10
U7	16	8
U8	20	10
U9	20	10
U10	20	10
U11	20	10
U12	28	14
U13	28	14
U14	28	14
U15	28	14
U16	14	7
U17	16	8
U18	20	10
U19	20	10
U20	14	7
U21	14	7
U22	14	7
U23	14	7
U24	20	10
U25	11	29
U26	14	7
U27	14	7
U28	14	7
U29	14	7
U30	14	7
U31	16	8
U32	16	8
U7A	14	7

NOTE:
1. ALL RESISTORS ARE OHMS ±5%, 1/4W.
2. MODEL 5820-EPROM 2764, PIN 26 NC INTERNAL CONNECTION (U12-U15, U31 NOT USED.
MODEL 5830-EPROM 27128 (U12-U15).

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE
X/X ± 1/64 | XXX ± .005 | XX ± .01 | ∠ ± 1°
MATERIAL:
FINISH:

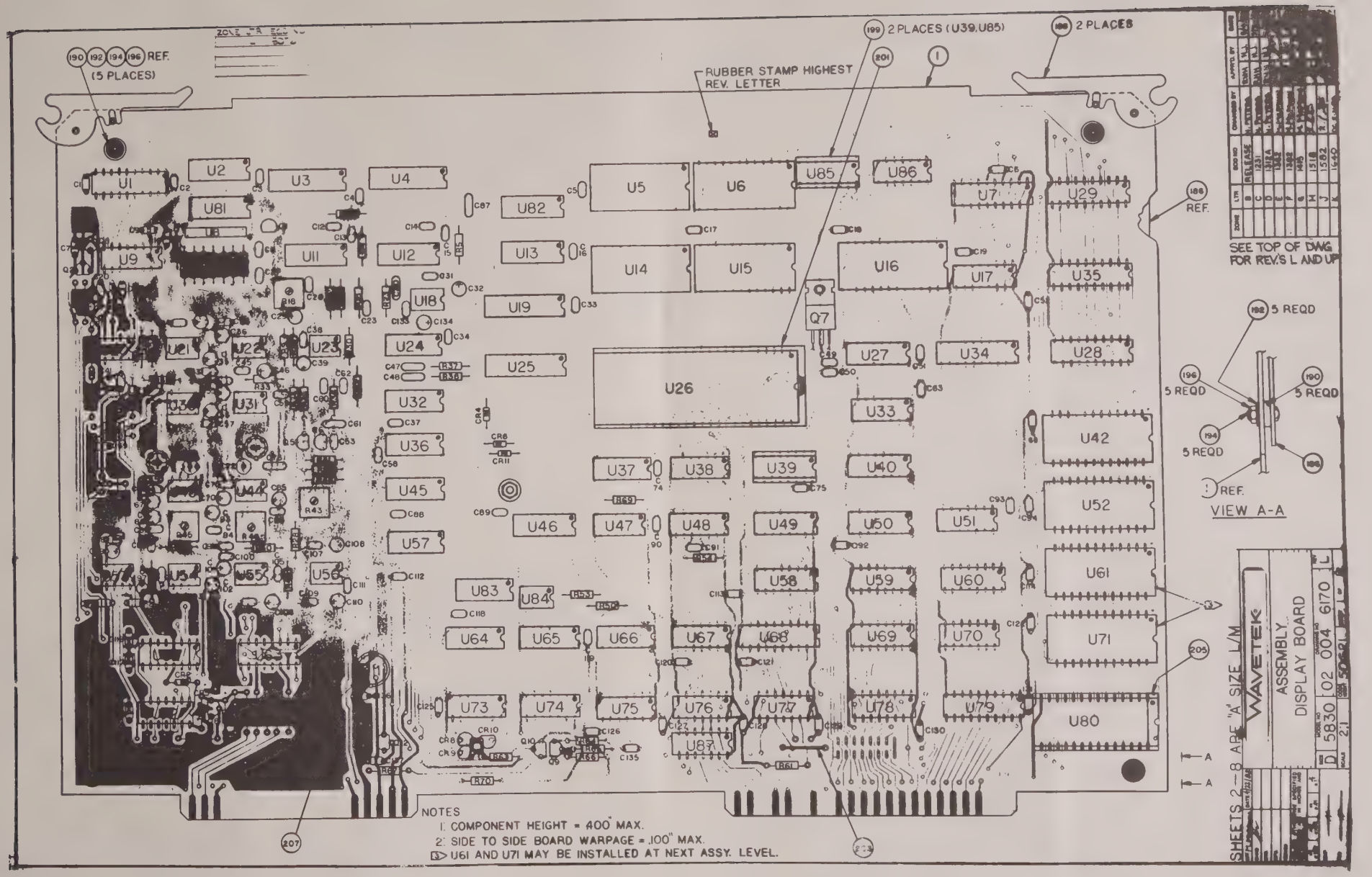
DO NOT SCALE DWG
REMOVE ALL BURRS
BREAK SHARP EDGES

DRAWN | DATE 4/4/85
CHKD
ENG APPR
MFG APPR
ISSUED

WAVETEK

TITLE: SCHEMATIC
Z80 PROCESSOR BOARD

SIZE D | MODEL NO. 5820/5830 | DRAWING NO. 03-004-6169 | REV B
SCALE — | CODE IDENT 50621 | SHEET 1 OF 1


190 192 194 196 REF. (5 PLACES)
RUBBER STAMP HIGHEST REV. LETTER
199 2 PLACES (U39,U85)
200 2 PLACES
201
1
186 REF.
SEE TOP OF DWG FOR REV'S L AND UP
198 5 REQD
196 5 REQD
190 5 REQD
194 5 REQD
REF.
VIEW A-A
U1 U2 U3 U4 U5 U6 U7 U8 U9 U10 U11 U12 U13 U14 U15 U16 U17 U18 U19 U20 U21 U22 U23 U24 U25 U26 U27 U28 U29 U30 U31 U32 U33 U34 U35 U36 U37 U38 U39 U40 U41 U42 U43 U44 U45 U46 U47 U48 U49 U50 U51 U52 U53 U54 U55 U56 U57 U58 U59 U60 U61 U62 U63 U64 U65 U66 U67 U68 U69 U70 U71 U72 U73 U74 U75 U76 U77 U78 U79 U80 U81 U82 U83 U84 U85 U86 U87
Q7
205
207
A
A
NOTES
1. COMPONENT HEIGHT = .400" MAX.
2. SIDE TO SIDE BOARD WARPAGE = .100" MAX.
3 U61 AND U71 MAY BE INSTALLED AT NEXT ASSY. LEVEL.
WAVETEK
ASSEMBLY, DISPLAY BOARD
D 5830 02 004 6170 L
SHEETS 2-8 ARE "A" SIZE L/M

WAVETEK®

ASSEMBLY
DISPLAY BOARD (5830)

LIST OF MATERIAL
02 004-6170

REV
L

DATE

SHEET 2 OF 8

1	01-320-6170	1	ARTWORK & DRILLING, DISPLAY BD. (5830)	
2				
3	125-7400	3	U: QUAD 2IN NAND GATE (74LS00)	U37, U76, U83
4				
5	125-7402	1	U: QUAD 2IN NOR GATE (74LS02)	U67
6				
7	125-7404	2	U: HEX INVERTER (74LS04)	U33, U72
8				
9	125-7410	1	U: TRIPLE 3IN NAND GATE (74LS10)	U38
10				
11	125-7414	1	U: HEX SMT TRGR (74LS14)	U74
12				
13	125-7432	1	U: QUAD 2 IN OR GATE (74LS32)	U36
14	125-7451	1	U: DUAL 2 WIDE 2 IN AOI GATE (74LS51)	U87
15	125-7474	3	U: DUAL TYPE D FLIP FLOP (74LS74)	U47, U57, U64
16				
17				
18				
19	125-0158	3	U: 3TO8 DECOD AD/LAT (74LS131)	U11, U27, U49
20				
21	125-0115	1	U: 3 TO 8 LINE DECOD (74LS138)	U40
22				
23	125-0101	1	U: 8BT SHFT REG SIPO (74LS164)	U75
24				
25	125-0109	3	U: HX TYPE D FLIP FLOP (74LS174)	U46, U58, U60
26				
27	125-0110	1	U: QUAD D FLIP FLOP (74LS175)	U13
28				
29	125-0144	2	U: OCT BUF INV 3-ST (74LS240)	U19, U25
30				
31	125-0153	1	U: OCT BUF 3-ST (74LS244)	U7
32				
33	125-0154	1	U: OCT BUS XOVR 3ST (74LS245)	U79

FORM NO 304

WAVETEK®

ASSEMBLY DISPLAY BD (5830) D

LIST OF MATERIAL 02 004-6170 REV SCS SHT 2

SHEET 3 OF 8

				REMARKS
34	125-0126	4	U: QUD 2 TO 1 MPLXR 3ST (74LS251)	U50, U59, U69, U78
35				
36	125-0139	3	U: OCT D-FLIP W/CLR (74LS273)	U1, U3, U68
37				
38	125-0140	3	U: OCT D-FLIP 3-ST (74LS374)	U4, U28, U29
39				
40	125-0111	2	U: 4 BT BIN U/D CTR (74LS193)	U2, U81
41				
42	122-0100	3	U: MNSTBL MVBRTR (74121)	U24, U32, U48
43				
44	124-7404	2	U: HEX INVERTER (74S04)	U73, U70
45				
46	124-7408	2	U: QUAD 2 IN AND GATE (74S08)	U77, U45
47				
48	124-7474	2	U: DL D TYPE FLIP FLOP (74S74)	U65, U66
49				
50	129-3203	1	U: MICRO PROCESSOR (8X300)	U26
51	123-7453	1	U: EXP 4W 2IN ADI GATE (74H53)	U51
52				
53	129-3032	2	U: RAM 2048X8 STATIC (TMS4016)	U42, U52
54	129-1505	2	U: DAC 8 BIT BINARY (5008)	U9, U12
55	129-1506	1	U: DAC 8 BIT BINARY (5009)	U11
56	120-1012	2	U: VOLTAGE FOLLOWER (LM310)	U43, U44
57				
58	120-1018	9	LIN OP-AMP DIL (NE5534A)	U18, U21, U22, U30, U31, U53, U54, U55, U56
59				
60	120-1015	2	U: LIN OP-AMP (LF-356) MIN-DIP	U20, U23
61				
62	138-3311	2	U; QD SPST JFET ANALOG SWITCH (LF 1333IN)	U62, U63
63				
64	128-2105	1	U: PULL UP NET 1K 2% X 7 SIP	U8
65				
66	021-9016	1	PROM SET: PGMD (5830-6170)	U39, U5, U6, U14, U15, U16, U85

FORM NO 3111

WAVETEK®

ASSEMBLY
DISPLAY BD (5830)

LIST OF MATERIAL
02 004-6170

REV SEE SHT 2

SHEET 4 OF 8

D

	PART NO.	QTY	DESCRIPTION	REMARKS
67	125-0157	1	U: 8BI SHFT REG PISO (74LS165)	U82
68				
69	125-0134	1	U: DL 4 BT BIN CTR (74LS393)	U86
70				
71	120-4451	1	U: DUAL PRPHL DRIVER (75451)	U84
72				
73	125-0147	2	U: 8 BIT LATCH 3-ST (74LS373)	U34, U35
74				
75	120-0053	2	Q: P.V. REG 5V (78L05)	Q1, Q2
76				
77	135-4411	1	Q: SIL NPN (D44C11)	Q7
78				
79	137-6523	3	Q: SIL PNP (MPS6523)	Q5, Q6, Q8
80	120-0124	1	Q: P.V. REG 12V TO-39 (78M12CG)	Q11
81	138-0660	2	Q: FET N-CHAN (3N128)	Q3, Q4
82	120-0123	1	Q: N.V. REG 12V TO-72 (79L12C)	Q12
83	135-6521	2	Q: SIL NPN (MPS6521)	Q9, Q10
84				
85	132-0277	1	CR: GER 120PIV 100MA (1N277)	CR2
86				
87	132-0457	5	CR: SL LW LK 70PIV 200MW (1N457)	CR4, CR6, CR11, CR5, CR7
88				
89				
90				
91	133-0101	3	CR: HOT CARRIER, LOW CAP (MB0101)	CR8, CR9, CR10
92				
93	118-0200	1	R: VAR CMT 20JL 3/8SQ FM	R18
94				
95	118-2202	2	R: VAR CMT 2K 3/8SQFM	R45, R46
96				
97	118-3101	2	R: VAR CMT 10K 3/8SQFM	R17, R43
98				
99	111-2268	2	R: FX MFLM 2.265K .5% 1/8W	R1, R6

FORM NO 301

WAVETEK®

ASSEMBLY
DISPLAY BD (5830)

SIZE D

LIST OF MATERIAL
02 004-6170

REV SHT 2

DATE

SHEET 5 OF 8

	PART NO	QTY	DESCRIPTION	REMARKS
100	112-4420	1	R: FX MFLM 44.2K 1% 1/8W	R2
101				
102	112-2261	2	22.6K 1% 1/10W	R3, R14
103				
104	111-4991	5	4.99K 1% 1/10W	R4, R11, R12, R47, R60
105				
106	111-2720	3	2.72K 1% 1/8W	R5, R19, R21
107				
108	111-1001	7	1K 1% 1/10W	R35, R41, R56, R51, R52, R65, R66
109				
110	112-1001	9	R: FX MFLM 10K 1% 1/8W	R1, R20, R36, R37, R54, R55, R58, R59, R63
111	116-2101	1	R: FX CFLM 1K 5% 1/4W	R69
112	116-0331	1	R: FX CFLM 330Ω 5% 1/4W	R8
113				
114	112-1101	2	R: FX MFLM 11K 1% 1/10W	R10, R13
115				
116	110-1001	2	R: FX MFLM 100Ω 1% 1/10W	R15, R62
117				
118				
119				
120	116-5121	1	R: FX CFLM 1.2M 5% 1/4W	R68
121				
122	116-6201	2	R: FX CFLM 20M 5% 1/4W	R22, R28
123				
124	111-2211	1	R: FX MFLM 2.21K 1% 1/10W	R23
125				
126	116-2391	2	R: FX CFLM 3.9K 5% 1/4W	R24, R40
127				
128	110-4641	8	R: FX MFLM 464Ω 1% 1/10W	R25, R26, R29, R30-R34
129				
130	110-7501	1	R: FX MFLM 750Ω 1% 1/10W	R27
131				
132	110-5491	1	R: FX MFLM 549Ω 1% 1/10W	R9

WAVETEK®

ASSEMBLY
DISPLAY BD (5830)

02 004-6170

REV SEE SHT 2

SHEET 6 OF 8

133	116-3121	1	R: FX CFLM	12K 5% ¼W	R38
134					
135	116-2471	1		4.7K 5% ¼W	R42
136	116-1271	1		270Ω 5% ¼W	R10
137	116-1471	1	R: FX CFLM	470Ω 5% ¼W	R44
138					
139	113-7320	2	R: FX MFLM	732K 1% ⅛W	R48, R49
140					
141	116-1391	2	R: FX CFLM	390Ω 5% ¼W	R50, R53
142					
143	116-0471	1		47Ω 5% ¼W	R57
144					
145	116-1221	1		220Ω 5% ¼W	R61
146					
147	116-1681	1		680Ω 5% ¼W	R64
148					
149	116-0221	1	R: FX CFLM	22Ω 5% ¼W	R67
150					
151	100-1155	2	C: FX CER	150PF 10% 500V	C9, C12
152					
153	101-0430	1	C: FX MICA DP	43PF 10% 500V	C30
154					
155	100-3105	1	C: FX MONO	.01MF +80-20% 50V	C14
156					
157	101-0510	3	C: FX MICA DP	51PF 10% 500V	C47, C109, C95
158					
159	101-1500	1	C: FX MICA DP	500 PF 10% 500V	C61
160					
161	101-1470	2	C: FX MICA DP	470PF 10% 500V	C65, C73
162					
163	108-0180	2	C: VAR CER	3.5-18PF 250 V	C68, C72
164					
165	101-1820	2	C: FX MICA DP	820PF 10% 500V	C98, C105

WAVETEK®

ASSEMBLY DISPLAY BD (5830)

LIST OF MATERIAL 02004-6170 REV SPE SHT 2

DATE SHEET 7 OF 8

166	101-0100	1	C:FX MICA DP 101pf 10% 500V	C91
167				
168	100-4102	89	C:FX MONO .1uF 50V Z5U	C1-C7, C10, C11, C13, C15-C20, C22-C24, C26-C28, C31, C33, C34, C37, C38, C42-C45, C49-C54, C57-C60, C62-C64, C66, C69, C71, C74, C78, C81, C82, C84, C86, C88-C90, C92-C94, C96, C99, C100, C103, C104, C107, C75, C111-C114, C116-C122, C124-C131, C133, C135-C137
169				
170				
171				
172				
173				
174				
175				
176	101-0180	1	C:FX MICA DP 18pf 10% 500V	C48
177				
178	101-1330	1	C:FX MICA DP 330pf 10% 500V	C87
179				
180	109-6100	25	C:FX TANT 10uF 20% 20V	C8, C21, C25, C29, C32, C35, C36, C39, C41, C46, C55, C56, C67, C70, C79, C80, C83, C85, C97, C101, C102, C106, C108, C110, C134
181				
182				
183				
184				
185		1		
186	320-6183	1	SHIELD PLATE ISG & DISPLAY BOARD (5830)	
187				
188	364-0404	2	EJECTOR, PC 5830	
189				
190	349-2010	5	WASHER: FLT NYL 1/16 THK	
191				
192	388-1041	5	WASHER: EXT LK STL CAD #4	
193				
194	381-4062	5	SCR: STL CD PH 4-40 X 3/8 PH	
195				
196	387-4060	5	NUT: HX STL CD 4-40 X 3/16 AF	
197				
198				

WAVETEK®

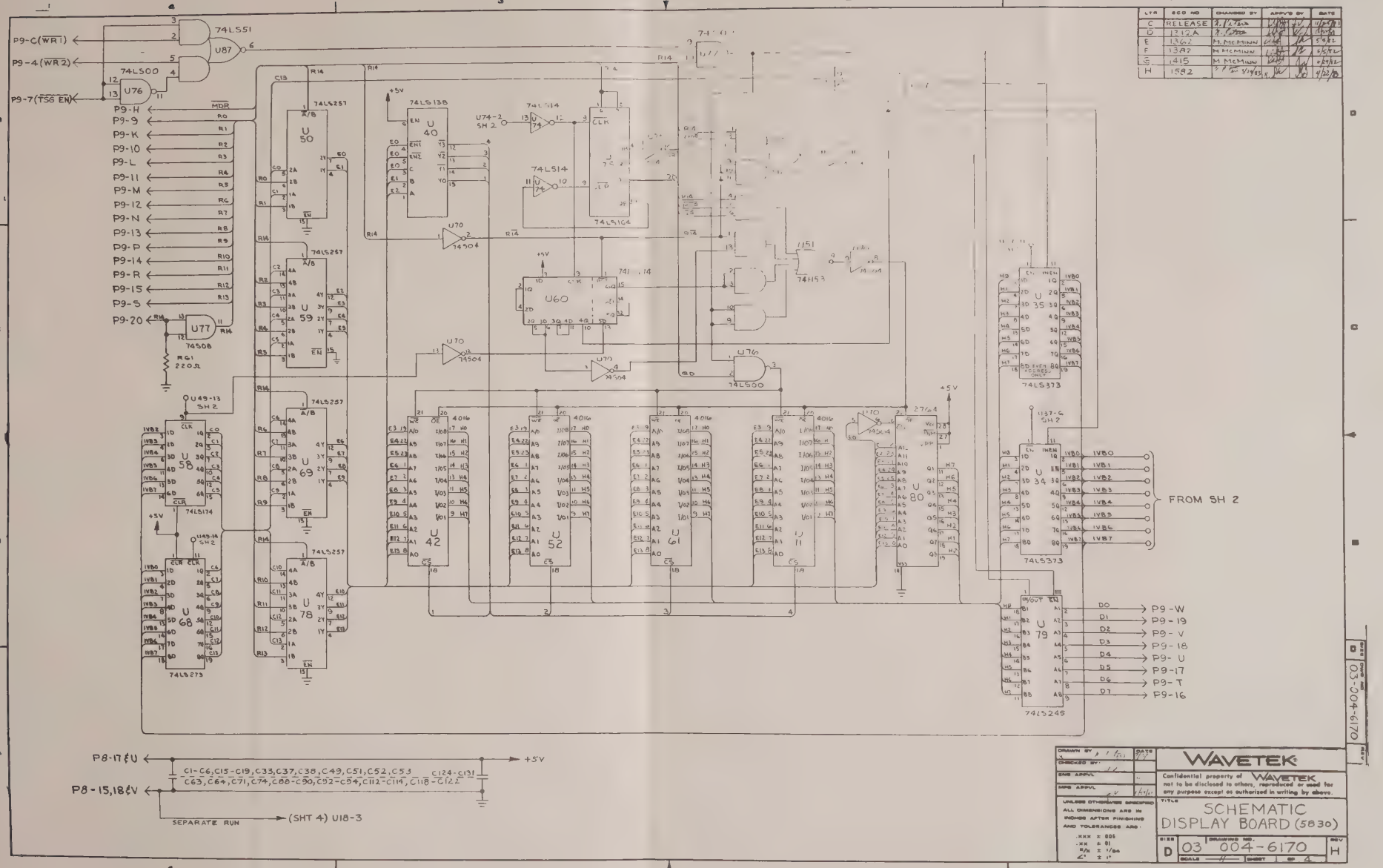
ASSEMBLY
DISPLAY BD (5830)

D

LIST OF MATERIAL 02004-6170 REV SEE SHT 2

SHEET 8 OF 8

199	353-1604	2	SOCKET: IC 16PIN DIP ST	U39, U85
200				
201	353-5003	1	SOCKET: IC 50 PIN DIP SIZEF	U26 # DILBQ50P-101 (BURNDY)
202				
203	378-1961	N/R	WIRE: # 30 AWG SLD KYN BLUE	
204				
205	353-2800	1	SOCKET: IC 28 PIN DIP ST	U80
206				
207	376-2108	1	SPACER: TXSTR LEAD, NYL, LOW	Q11



LTR	ECO NO	CHANGED BY	APPV'D BY	DATE
C	RELEASE	[illegible]	[illegible]	[illegible]
D	1212A	[illegible]	[illegible]	[illegible]
E	1362	M. McMINN	[illegible]	5/8/82
F	1382	M. McMINN	[illegible]	5/8/82
G	1415	M. McMINN	[illegible]	6/21/82
H	1582	[illegible]	[illegible]	9/22/83

DRAWN BY	[illegible]	DATE	[illegible]
CHECKED BY	[illegible]		
ENG APPVL	[illegible]		
MFG APPVL	[illegible]		

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE: .XXX ± .005, .XX ± .01, FRA ± 1/64, ∠ ± 1°

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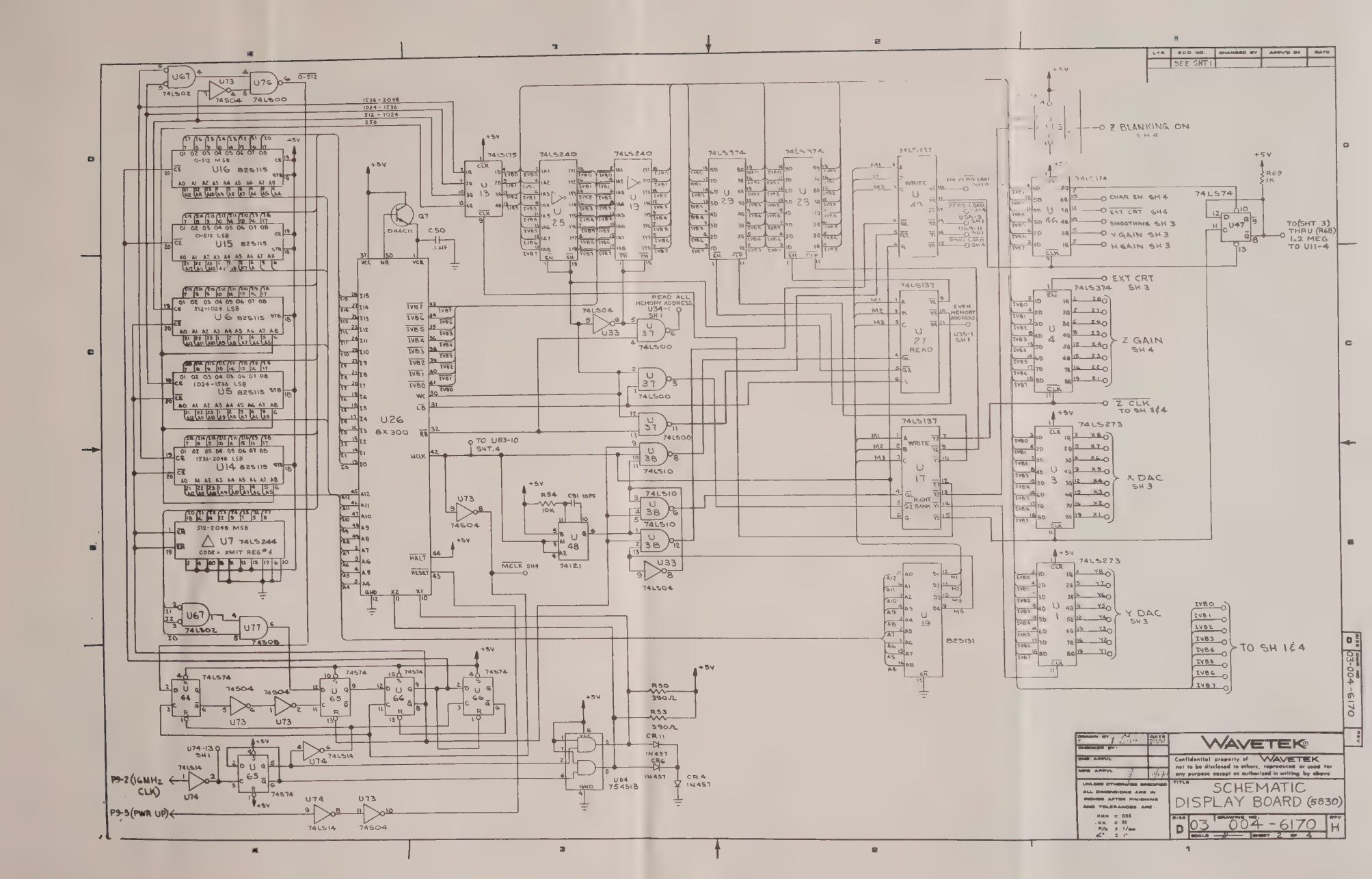
TITLE: SCHEMATIC DISPLAY BOARD (5830)

SIZE D | DRAWING NO. 03 004-6170 | REV H

SCALE — | SHEET 1 OF 4

03-004-6170 D



LTR	ECO NO.	CHANGED BY	APPV'D BY	DATE
	SEE SHT 1			

		DATE
DRAWN BY		
CHECKED BY:		
ENG APPVL		
MFG APPVL		

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XXX ± .005
.XX ± .01
FR ± 1/64
∠° ± 1°

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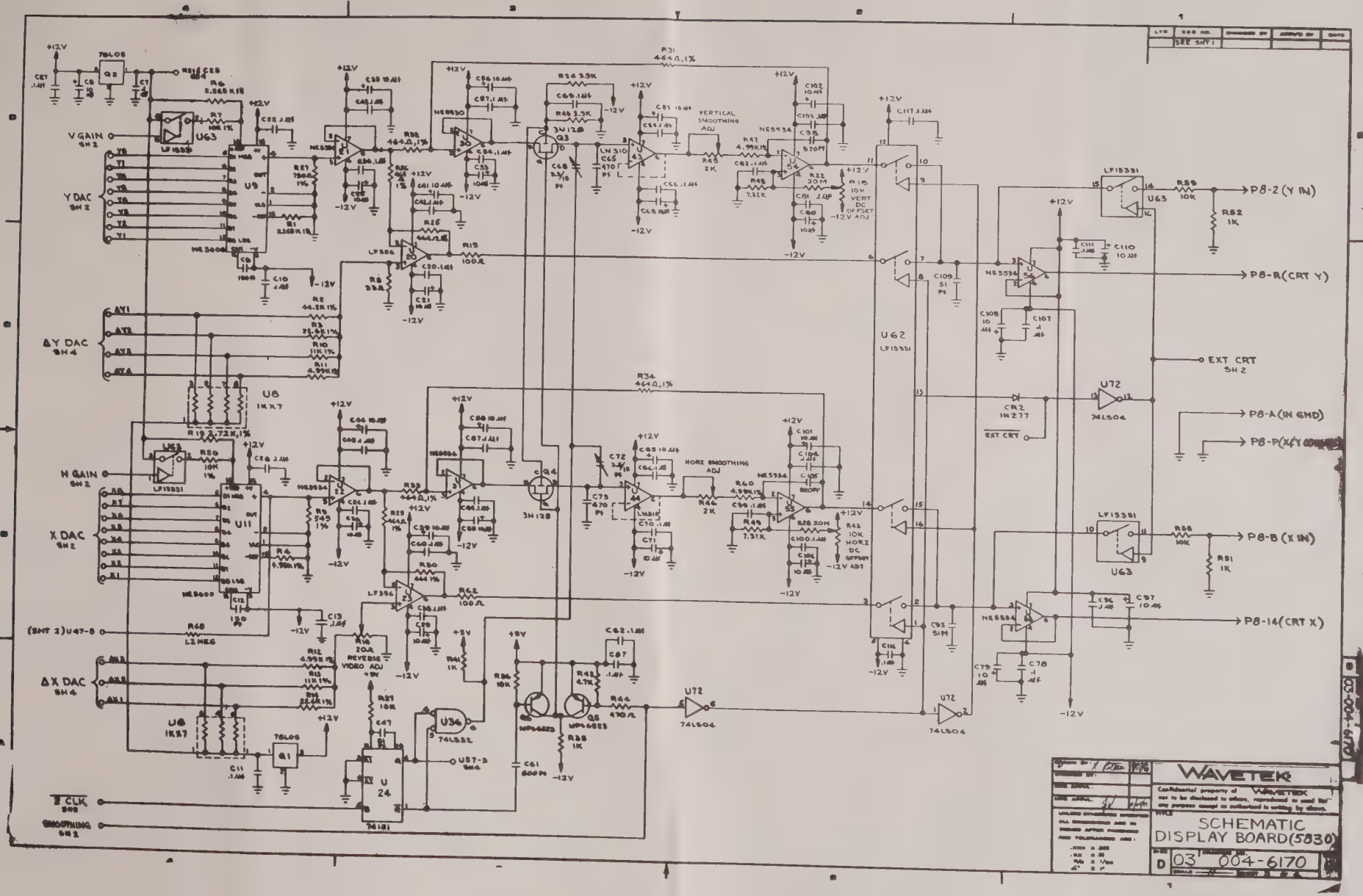
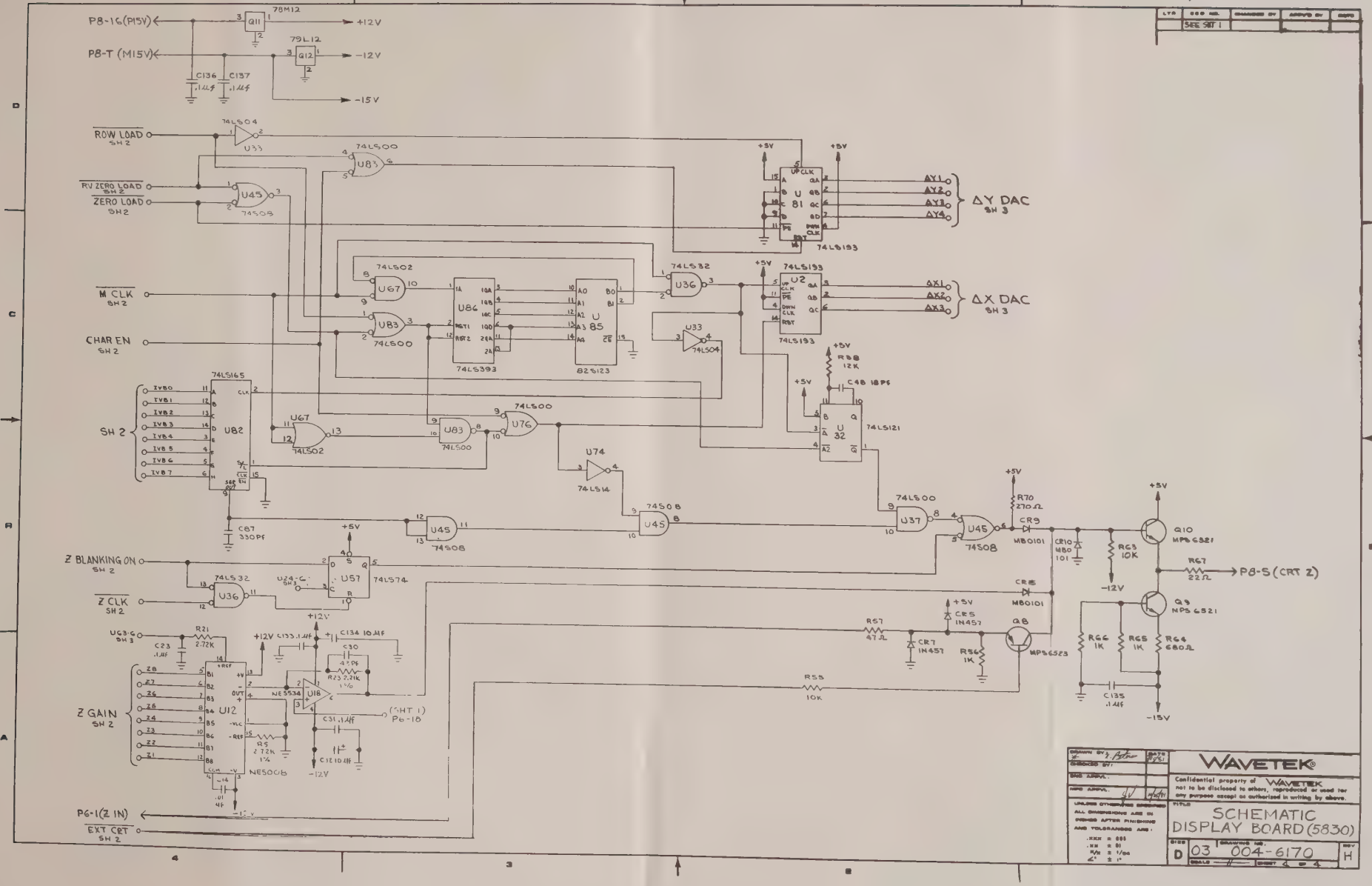
TITLE
SCHEMATIC
DISPLAY BOARD (5830)

SIZE	DRAWING NO.	REV
D	03 004-6170	H

SCALE — SHEET 2 OF 4

03-004-6170


WAVETEK
SCHEMATIC
DISPLAY BOARD(5830)
03-004-6170
P8-2 (Y IN)
P8-R(CRT Y)
EXT CRT SH 2
P8-A(IN GND)
P8-B (X IN)
P8-14(CRT X)
VERTICAL SMOOTHING ADJ
HORZ SMOOTHING ADJ
VIDEO ADJ
VGAIN
YDAC
ΔY DAC
HGAIN
XDAC
ΔX DAC
U62
U63
U72
74LS04
74LS32
74LS31


P8-16(P15V)
78M12
Q11
+12V
P8-T (M15V)
79L12
Q12
-12V
-15V
C136 .1uF
C137 .1uF
ROW LOAD SH 2
74LS04
U33
74LS00
U83
RV ZERO LOAD SH 2
ZERO LOAD SH 2
U45
74S08
M CLK SH 2
CHAR EN SH 2
74LS02
U67
74LS393
U86
B26123
U85
74LS32
U36
74LS193
U2
ΔY DAC SH 3
ΔX DAC SH 3
SH 2
74LS165
U82
74LS121
U32
74LS14
U74
74LS74
U57
Z BLANKING ON SH 2
Z CLK SH 2
U37
R70 270Ω
CR9
MB0101
CR10 MB0101
R63 10K
Q10 MPS6521
R67 22Ω
P8-5(CRT Z)
Q9 MPS6521
CR8
CR5 IN457
CR7 IN457
Q8 MPS6523
R57 47Ω
R56 1K
R55 10K
R66 1K
R65 1K
R64 680Ω
C135 .1uF
C87 330pF
C23 .1uF
R21 2.72K
C133 .1uF
C134 10uF
C30 43pF
R23 2.21K 1%
C31 .1uF
C32 10uF
R8 2.72K 1%
U12
NE5534
U18
NE5008
Z GAIN SH 2
(SHT 1) P6-18
P6-1(Z IN)
EXT CRT SH 2
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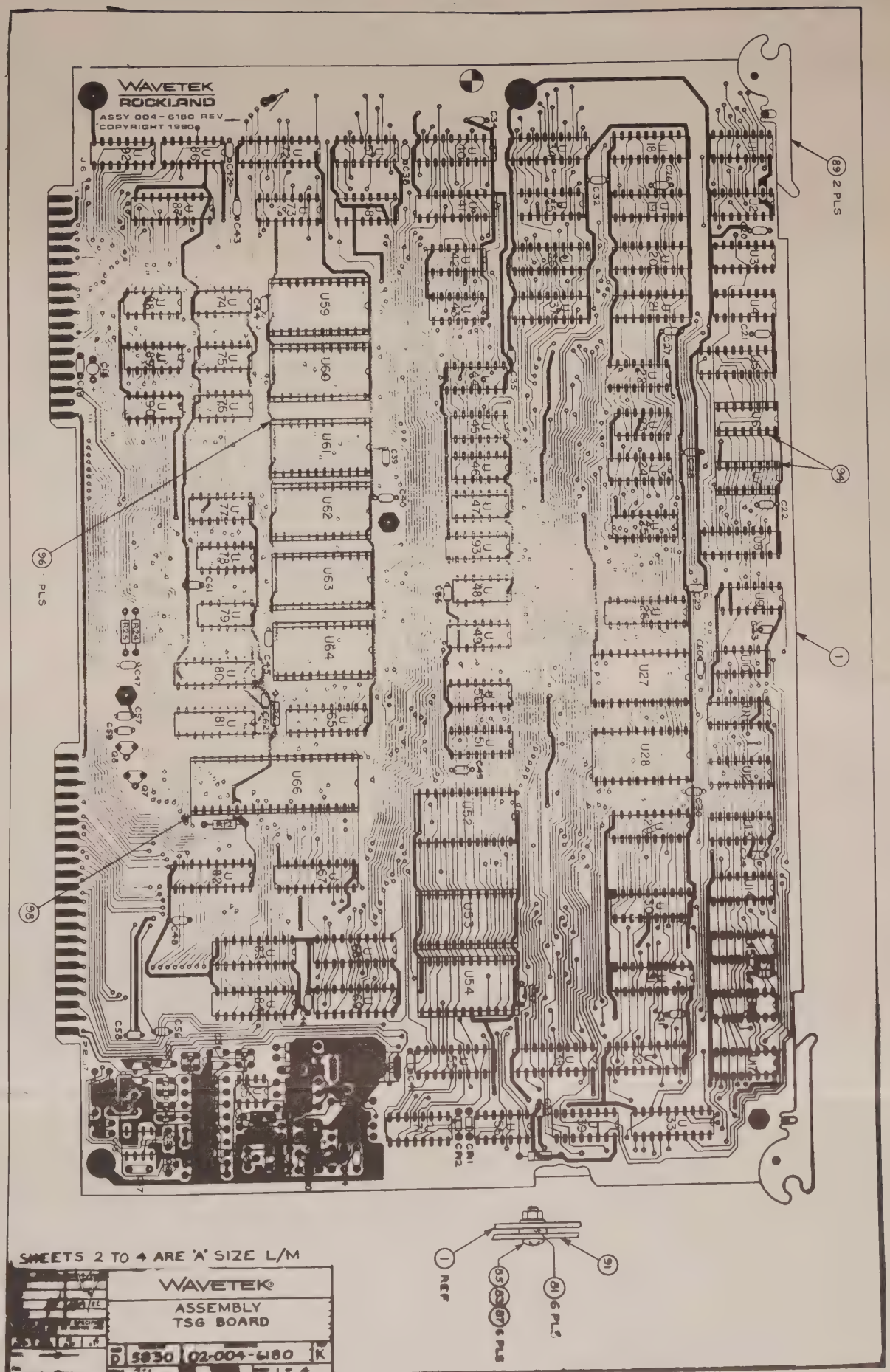
SCHEMATIC
DISPLAY BOARD (5830)
03 004-6170
SIZE D
REV H



SHEETS 2 TO 4 ARE 'A' SIZE L/M

WAVETEK®

ASSEMBLY
TSG BOARD

5830 | 02-004-6180 | K

WAVETEK®

TITLE: ASSEMBLY TSG (5830)

LIST OF MATERIAL: 02 004-6180 REV K

SIZE D | DATE 10/21/80 | SHEET 2 OF 4

ITEM	PART NO.	QTY	DESCRIPTION	REMARKS
1	320-6180	1	TSG BOARD (5830)	
2				
3	125-0130	9	U: 4BT FULL ADDER (74LS283)	U1,2,58,57,73,35,22,24,25
4	125-0139	15	U: OCT D-FLIP W/CLR (74LS273)	U33,36,37,41,40,72,19,18,34,20,21,26 U5,8,55
5	125-7474	5	U: DUAL TYPE D FLIP FLOP (74LS74)	U42,23,88,74,10
6	122-0131	1	U: HX 3-ST BUS BUFF (74367)	U4
7	125-0118	5	U: 4BT BIN SYNC CNT (74LS161)	U9,14,51,50,49
8	125-0101	3	U: 8BT SHFT REG SIPO (74LS164)	U46,U47,U48
9	125-0133	3	U: DL DECADE COUNTER (74LS390)	U15,11,13
10	125-0124	3	U: 8 TO1 MPLXR 3-ST (74LS251)	U12,16,17
11	125-0109	1	U: HX TYPE D FLIP FLOP (74LS174)	U39
12	120-2082	1	U: DL LIN BIFET OP-AMP (TL082C)	U85
13	120-2324	1	U: QU LIN OP-AMP (LM324C)	U56
14	120-1018	1	U: LIN OP-AMP DIL (NE5534A)	U91
15				
16				
17	125-0115	2	U: 3 TO 8 LINE DECOD (74LS138)	U44,77
18	125-7404	2	U: HEX INVERTER (74LS04)	U78,79
19	125-7432	1	U: QUAD 2 IN OR GATE (74LS32)	U90
20	125-7400	1	U: QUAD 2 IN NAND GATE (74LS00)	U76
21	125-7402	1	U: QUAD 2 IN NOR GATE (74LS02)	U75
22				
23	129-3201	1	U: MICRO PROCESSOR (Z80 CPU)	U66
24	125-0153	8	U: OCT BUF 3-ST (74LS244)	U80,87,67,83,82,84,69,65
25	122-0104	1	U: LK AHD CRY GEN (74182)	U3
26	125-0142	2	U: ALU/FUNCT GEN (74LS381)	U32,31
27				
28				
29	125-0140	3	U: OCT D-FLIP 3-ST (74LS374)	U29,38,68
30				
31	125-0111	2	U: 4BT BIN U/D CTR (74LS193)	U86,92
32	125-7408	1	U: QUAD 2 IN NAND GATE (74LS08)	U43

FORM NO. 203

WAVETEK®

TITLE: ASSEMBLY TSG (5830)

LIST OF MATERIAL: 02 004-6180 | REV SEE SHT 2

DRAWING NO. N/A | REV 4V | ASSY SIZE D | DATE 10/22/80 | SHEET 3 OF 4

ITEM	PART NO.	QTY	DESCRIPTION	REMARKS
33	125-7486	1	U: QUAD 2 IN XOR GATE (74LS86)	U45
34	125-0154	1	U: OCT BUS XCVR 3ST (74LS245)	U81
35	125-7410	1	U: TRIPLE 3 IN NAND GATE (74LS10)	U89
36	125-0126	1	U: QD 2 TO 1 MPLXR 3ST (74LS257)	U93
37	129-1505	1	U: DAC 8 BIT (5008)	U71
38				
39				
40				
41	111-1620	1	R: FX MFLM 1.62K 1% 1/8W	R28
42	112-4640	1	46.4K 1% 1/8W	R19
43	112-1460	1	14.6K 1% 1/8W	R18
44	111-4678	1	4.675K .5% 1/8W	R17
45	111-1468	1	1.461K .5% 1/8W	R16
46	113-1270	1	127K 1% 1/8W	R21
47	111-2628	1	2.626K .5% 1/8W	R10
48	112-1170	1	11.7K 1% 1/8W	R2
49	111-3240	1	3.24K 1% 1/10W	R27
50	113-1001	1	100K 1% 1/10W	R20
51	110-4121	1	412 Ω 1% 1/10W	R9
52	112-1001	2	10K 1% 1/10W	R7, R8
53	111-2431	1	2.43K 1% 1/10W	R11
54	111-6041	2	FX MFLM 6.04K 1% 1/10W	R4, R5
55	116-2751	2	FX CFLM 7.5K 5% 1/4 W	R22, R23
56	116-2101	1	1K 5% 1/4W	R1
57	116-3471	1	47K 5% 1/4W	R14
58	116-5121	1	1.2M 5% 1/4W	R13
59	116-3101	3	10K 5% 1/4W	R12, R24, R25
60	116-2101	1	FX CFLM 1.0 K 5% 1/4W	R6
61	118-2102	1	VAR CMT 1K 3/8 SQ FM	R26
62	118-3501	1	R: VAR CMT 50K 3/8 SQ FM	R15
63				
64				
65				

FORM NO 304

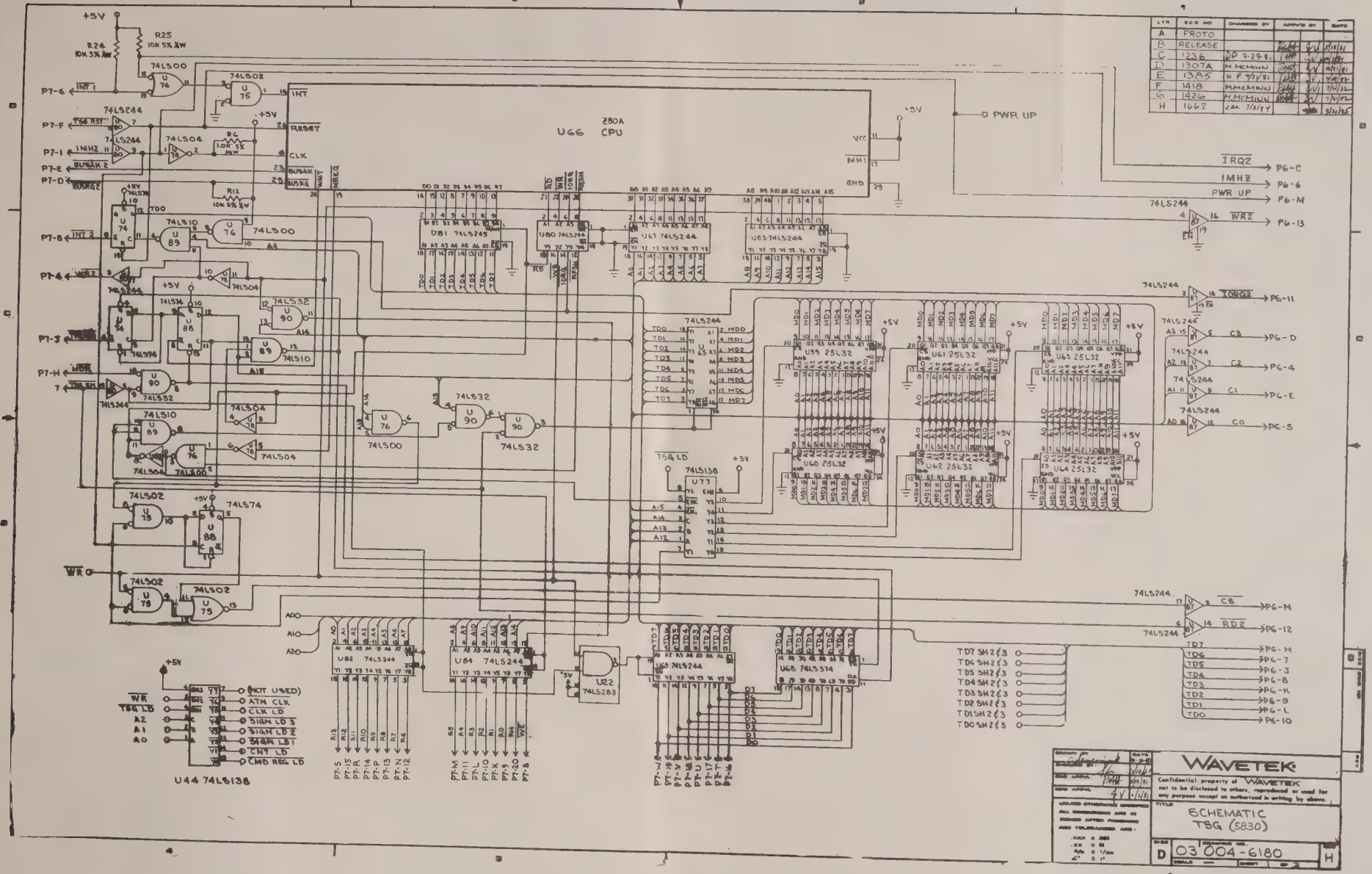
WAVETEK®

ASSEMBLY TSG (5830)

LIST OF MATERIAL 02 004-6180 REV SEE SHT 2

SIZE D DATE 10/22/80 SHEET 4 OF 4

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
66	101-1150	1	C: FX MICA DP 150PF 10% 500V	C11
67	101-1910	2	C: FX MICA DP 910PF 1% 500V	C6, C8
68	100-3105	1	C: FX MONO .01UF 20% 50V	C3
69	108-1200	1	C: VARMICA 24-200PF 175V	C1
70	109-6100	5	C: FX TANT 10UF 20% 20V	C5, C9, C12, C13, C18
71	100-4102	51	C: FX MONO .1UF 50V	C2, C4, C10, C11, C14, C15, C16, C19 - C62
72	101-2100	1	C: FX MICA DP 910 PF 10% 500V	C7
73				
74				
75	132-0457	2	CR: SL LW LK 70PIV 200MW (IN451)	CR1, CR2
76	120-0123	1	Q: NV REG 12V TO92 (79L12)	Q8
77	120-0122	1	Q: PV REG 12V TO92 (78L12)	Q7
78	138-0660	4	Q: FET N-CHAN (3N128)	Q1, Q2, Q3, Q4
79	120-0053	1	Q: PV REG 5V (78L05)	Q5
80	120-0054	1	Q: N.V. REG 5V (79L05)	Q6
81	349-2010	6	WASHER: FLT NYL #4 T	
82				
83	388-1041	6	WASHER: EXT LK STL CAD #4	
84				
85	381-4062	6	SCR: STL CD PH 4-40 X 3/8 PH	
86				
87	387-4060	6	NUT: HX STL CD 4-40 X 3/16 AF	
88				
89	364-0404	2	EJECTOR	
90				
91	01-320-6183	1	SHIELD PLATE TSG & DISPLAY BOARD (5830)	
92				
93				
94	353-1604	2	SOCKET: IC 16 PIN DIP ST.	FOR U6-U7
95				
96	353-2402	8	SOCKET: IC 24 PIN DIP ST.	FOR U53, U54 AND U57 THRU U64.
97				
98	353-4005	1	SOCKET: IC 40 PIN DIP ST.	FOR U66



LTR	ECO NO	CHANGED BY	APPVD BY	DATE
A	PROTO			
B	RELEASE			
C	1226	DP 9-29-81		
D	1307A	M MCMINN		
E	1385	N.P. 9/3/81		
F	1418	MMCMINN		
G	1426	M.MCMINN		
H	1662	dm 7/3/84		

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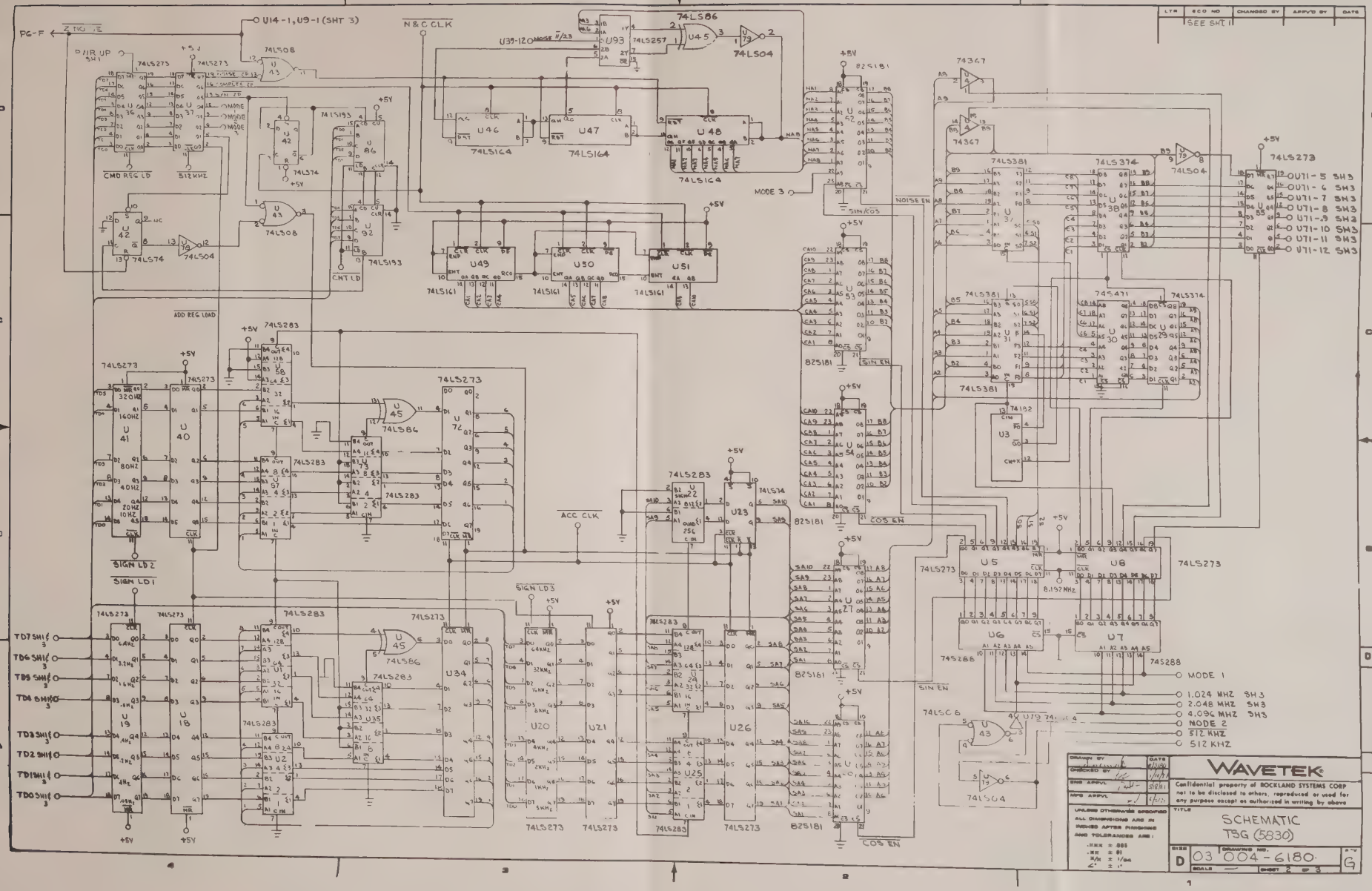
TITLE
SCHEMATIC
TSG (5830)

SIZE D | 03 004-6180 | H


SEE SHT 1
WAVETEK
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SCHEMATIC
TSG (5830)
03 004-6180
SIZE D
SHEET 2 OF 3
REV G
74LS273
74LS283
74LS374
74LS381
74LS471
74LS367
74LS504
74LS586
74LS288
74LS164
74LS161
B25181
74LS74
74LS08
74LS193
74LS374
74LS42
74LS86
74LS45
74LS04
74LS267
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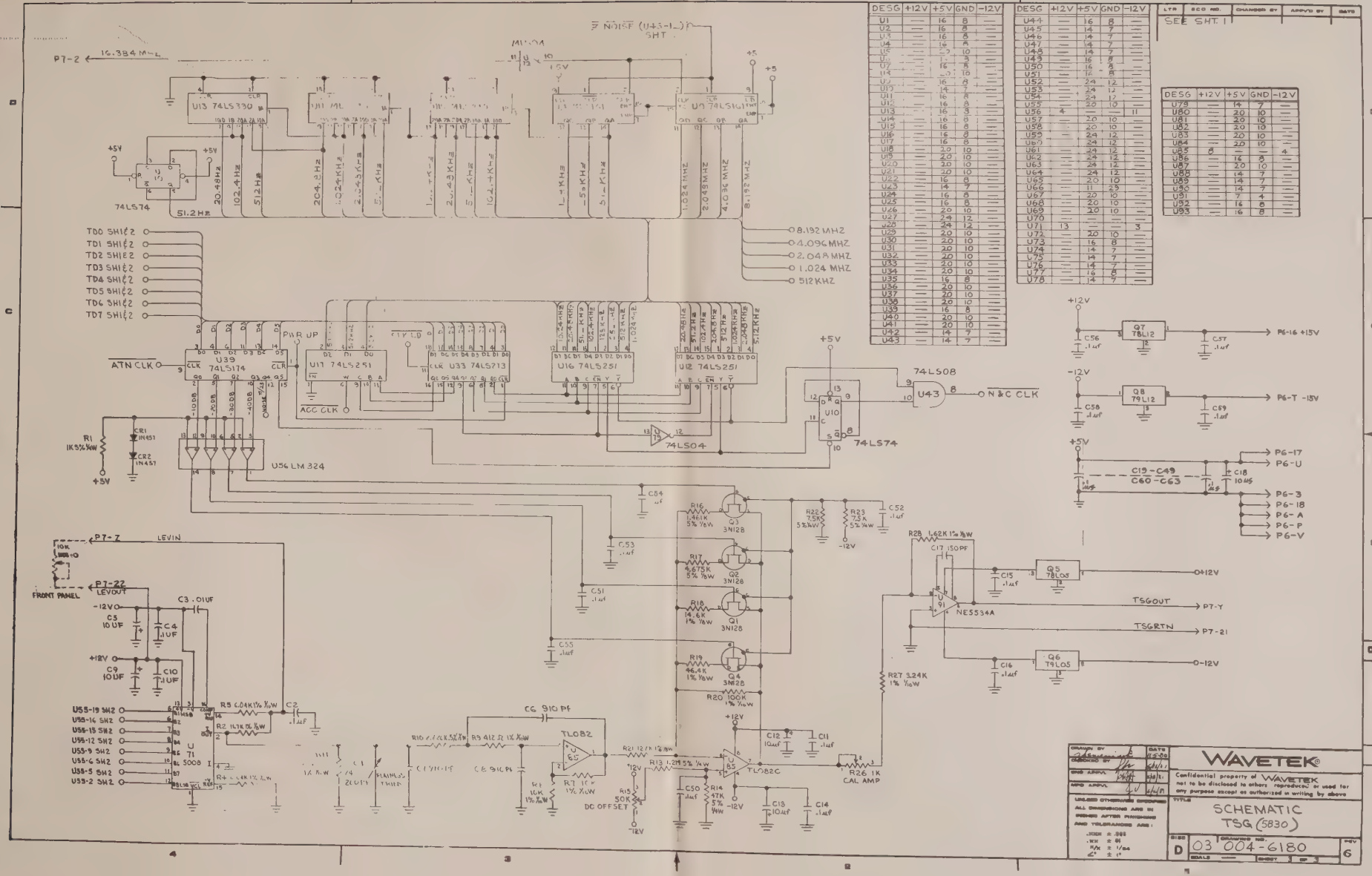
74LS182
74LS86
74LS08
74LS42
74LS43
74LS04
74LS74
74LS283
74LS273



DESG	+12V	+5V	GND	-12V
U1	—	16	8	—
U2	—	16	8	—
U3	—	16	8	—
U4	—	16	8	—
U5	—	20	10	—
U6	—	16	8	—
U7	—	16	8	—
U8	—	16	8	—
U9	—	16	8	—
U10	—	16	8	—
U11	—	16	8	—
U12	—	16	8	—
U13	—	16	8	—
U14	—	16	8	—
U15	—	16	8	—
U16	—	16	8	—
U17	—	16	8	—
U18	—	20	10	—
U19	—	20	10	—
U20	—	20	10	—
U21	—	20	10	—
U22	—	16	8	—
U23	—	14	7	—
U24	—	16	8	—
U25	—	16	8	—
U26	—	20	10	—
U27	—	24	12	—
U28	—	24	12	—
U29	—	20	10	—
U30	—	20	10	—
U31	—	20	10	—
U32	—	20	10	—
U33	—	20	10	—
U34	—	20	10	—
U35	—	16	8	—
U36	—	20	10	—
U37	—	20	10	—
U38	—	20	10	—
U39	—	16	8	—
U40	—	—	—	—
U41	—	20	10	—
U42	—	14	7	—
U43	—	14	7	—

DESG	+12V	+5V	GND	-12V
U44	—	16	8	—
U45	—	14	7	—
U46	—	14	7	—
U47	—	14	7	—
U48	—	14	7	—
U49	—	16	8	—
U50	—	16	8	—
U51	—	16	8	—
U52	—	24	12	—
U53	—	24	12	—
U54	—	24	12	—
U55	—	20	10	—
U56	4	—	—	11
U57	—	20	10	—
U58	—	20	10	—
U59	—	24	12	—
U60	—	24	12	—
U61	—	24	12	—
U62	—	24	12	—
U63	—	24	12	—
U64	—	24	12	—
U65	—	20	10	—
U66	—	11	23	—
U67	—	20	10	—
U68	—	20	10	—
U69	—	20	10	—
U70	—	—	—	—
U71	13	—	—	3
U72	—	20	10	—
U73	—	16	8	—
U74	—	14	7	—
U75	—	14	7	—
U76	—	14	7	—
U77	—	16	8	—
U78	—	14	7	—

DESG	+12V	+5V	GND	-12V
U79	—	14	7	—
U80	—	20	10	—
U81	—	20	10	—
U82	—	20	10	—
U83	—	20	10	—
U84	—	20	10	—
U85	8	—	—	4
U86	—	16	8	—
U87	—	20	10	—
U88	—	14	7	—
U89	—	14	7	—
U90	—	14	7	—
U91	—	7	4	—
U92	—	16	8	—
U93	—	16	8	—

LTR	ECO NO.	CHANGED BY	APPVD BY	DATE
SEE SHT. 1				

DRAWN BY		DATE	11-5-80
ENG APPVL			6/4/81
MFG APPVL			6/4/81

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AFTER FINISHING AND TOLERANCES ARE: .XXX ± .005, .XX ± .01, FRACTIONS ± 1/64, ANGLES ± 1°

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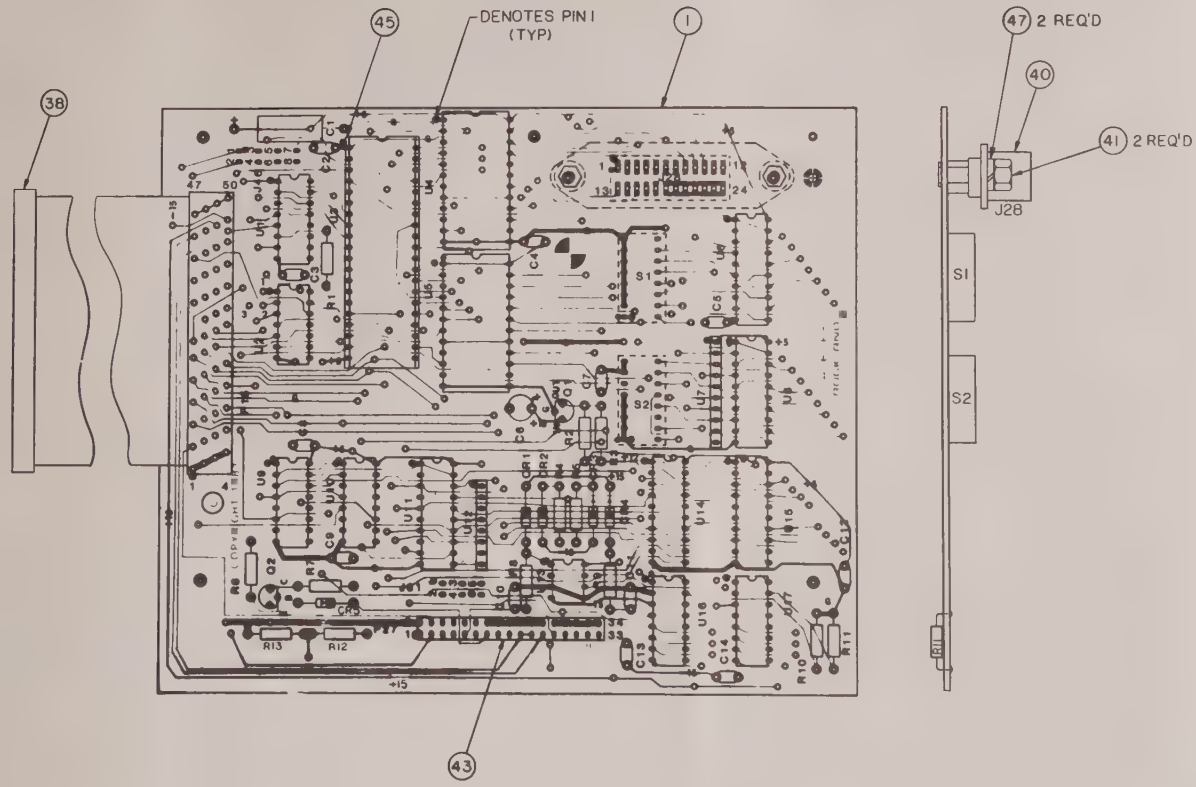
TITLE: SCHEMATIC TSG (5830)

SIZE: D | DRAWING NO: 03 004-6180 | REV: 6

SCALE: — | SHEET 5 OF 5

ZONE	LTR	ECO NO	CHANGED BY	APPR'D. BY	DATE
	A	PROTO			
	B	RELEASE		R.HH	
	C	1246	T.C. 8/24/81	R.HH	
	D	1298	M. McMINN		
	E	1338	M. McMINN		
	F	1668	DER 6/13/84		7/31/85
	G	1807	DER 6/13/84		7/31/85



SHT'S 2 & 3 ARE "A" SIZE L/M

DR. M. McMINN	DATE 1-6-82	WAVETEK
CHKD	1/10/82	P.C. ASSEMBLY
ENG.	1/11/82	IEEE/REAR PANEL
MFG	1/14/82	
ISSUED		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE

SIZE	MODEL NO	DRAWING NO	
D	5830	02 004 6185	G
SCALE 2:1	CODE IDENT 23338	SHEET 1 OF 3	

WAVETEK®

ASSEMBLY, IEEE/REAR PANEL
P.C. BOARD 5830

LIST OF MATERIAL 02 004-6185 REV E

DATE 23 OCT 80 SHEET 2 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	320-6185	1	IEEE/REAR PANEL P.C.BD	
2				
3	129-3202	1	U: MC68488-MH	U3
4	120-2447	2	| IEEE BUS XCVR (MC3447P)	U4, U5
5	125-0144	2	| OCT BUF INV 3ST (74LS240)	U6, U11
6	125-0153	1	| OCT BUF 3 ST (74LS244)	U8
7	128-3104	1	| 10K 2% X9 SIP	U7
8	125-0139	2	U: OCT D-FLIP W/CLR(74LS273)	U14, U15
9	129 1505	2	DAC 8BIT 3DIGIT (NE5008)	U16, U17
10	125-7404	1	U: HEX INVERTER (74LS04)	U2
11	125-0115	2	| 3 TO 8 LINE DECODER(74LS138)	U9, U10
12	125-0150	1	| 8 BT ADRS LATCH (74LS259)	U1
13	120-2082	1	U: DL LIN BIFET OP AMP (TL082C)	U13
14	342 8100	2	S: DIP 8POL 2POS	S1, S2
15	128-3105	1	U: 10K 2% X7 SIP	U12
16				
17				
18	116-3471	1	R: FIX CFLM 4.7K, 5%, 1/4W	R7
19	111-6041	4	| FIX MFLM 6.04K, 1% 1/10W	R2, R3, R10, R11
20	116-2101	4	| FIX CFLM 1K, 5%, 1/4 W	R6, R8, R9, R13
21	110-7501	2	R: FIX MFLM 750Ω, 1%, 1/10 W	R4, R5
22	116-5101	1	R: FX CFLM 1MΩ, 5% 1/4W	R1
23	116-1221	1	R: FIX CFLM 220Ω, 5%, 1/4 W	R12
24				
25	109-6470	1	C: FIX ELECT 47UF 20% 63V	C1
26	100-3105	9	| FX MONO .01UF, 20% 50V	C2-C5, C8, C9, C12-C19
27	109-6100	1	| FX TANT 10UF, 20%, 20V	C6
28	100-4102	3	C: FX MONO .1UF 20% 50V	C7, C10, C11
29				
30				
31	132-0457	5	CR: SL LW LK 70PIV 200MW (IN457)	CR1 — CR5
32				
33				

FORM NO 324

WAVETEK®

TITLE: ASSEMBLY: IEEE/REAR PANEL
P.C. BOARD 5830

LIST OF MATERIAL: 02 004 6185 | REV: E

SIZE: D | DATE: 23OCT80 | SHEET 3 OF 3

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
34				
35	120-0122	1	Q: P.V. REG 12V TO92 (78L12C)	Q1
36	135-6521	1	Q: SIL NPN (MPS6521)	Q2
37				
38	009-9613	1	CABLE ASSY: IEEE TO MAIN M16	
39				
40	351-2404	1	CONN: 24POS PNL SKT PCMT(552224-1)	J28
41	389-7006	1	JACK: SOCKET ASSY METRIC	FOR J28
42				
43	354-0005	1	CONN: TERM 34 PIN DIL ST	AP929665-01-17
44				
45	353-4001	1	SOCKET: IC 40 PIN DIP ST	FOR U3
46				
47	388-1102	2	WASHER: SPLT LK #10 STNLS	
48				
49				
50				

FORM NO 324

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ZONE	LTR	ECO NO	CHANGED BY	APPRVD. BY	DATE
	A	RELEASE			
	B	1358	TC 4/23/81		
	C	1354	gg		
	D	1807	aaa 4/27/81		

REF DESIG	VCC	GND	+15	-15
U1	16	8	—	—
U2	14	7	—	—
U3	20	1	—	—
U4	24	12	—	—
U5	24	12	—	—
U6	20	10	—	—
U7	1	—	—	—
U8	20	10	—	—
U9	16	8	—	—
U10	16	8	—	—
U11	20	10	—	—
U12	1	—	—	—
U13	—	—	8	4
U14	20	10	—	—
U15	20	10	—	—
U16	—	—	13	3
U17	—	—	13	3

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE				DO NOT SCALE DWG REMOVE ALL BURRS BREAK SHARP EDGES		
X/± 1/64	XXX ± .005	XX ± .01	±° 1°	DRAWN	DATE 4-8-82	
MATERIAL:				CHKD	5/12/82	
FINISH:				ENG APPR.	5/12/82	
				MFG APPR.	5/12/82	
				ISSUED		

WAVETEK

TITLE: ELECTRICAL SCHEMATIC IEEE - REAR PANEL

SIZE D | MODEL NO. 5830 | DRAWING NO. 03-004-6185 | REV D

SCALE: — | CODE IDENT 23338 | SHEET 1 OF 1

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